A Study Of The Self Concepts Of Primary Aged Children

Thesis

UNRESTRICTED

A STUDY OF THE SELF CONCEPTS OF PRIMARY AGED CHILDREN.

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ABSTRACT.

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This study is concerned with the self-concepts of primary aged children.Consideration is given in Part 1 to self theory in general and a theoretical examination of the development of self-concepts in children and the problems of self-concept measurement.

The second part of the study reports on a factor analytical construction of a self-concept scale. The final version of the scale contains 21 items and assesses five specific self-concepts: behavioural, social, general school, academic and parental. A global self-concept score is obtained by summing the scores on the 5 subscales.

A sample of 742 children ranging in age from 7 to 11 years old, completed the scale. Significant age differences were apparent in that the youngest children had the highest global, behavioural and parental self scores and also the lowest general school and academic self scores. Significant sex differences were found in that girls had higher scores than boys on the global, behavioural and parental self scales, but lower scores on the general school scale. No sex difference was observed for social or academic self.

The effect of social class, peer status, ability group, relative ability group, siblings and family position was investigated with respect to the self-concept scores. Significant differences were found in:

1. global self-concept for relative ability
2. social self-concept for peer status, ability group and relative ability group
3. general school self-concept for social class
4. academic self-concept for peer status, ability group and relative ability group.

No significant results were obtained for behavioural and parental self-concepts with respect to any of the selected variables.

Finally, the use of specific self-concept scales is advocated rather than global self-concept scales.Measures of "relative" ability, rather than "absolute" ability, are considered to be important for future self-concept research in the area of academic achievement.

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CHAPTER ONE. AN INTRODUCTION TO SELF THEORY.

The chapter heading is perhaps ambiguous in that it suggests that there is one self-theory. This is far from correct. Over the last eight or nine decades many theorists have propounded their views on the self. The belief in the value of the construct of the self ranges from that of a useful explanatory construct to that of the most central concept in psychology. For some it is a necessary construct; for other theorists it is of little value.

This chapter will review the various theories pertaining to the self. It will illustrate the considerable theoretical data amassed on the self. Common and divergent views will be emphasized within a rough chronological framework.

A BRIEF HISTORICAL OVERVIEW.

The construct of self began as a philosophical idea. The Greek maxim of "Know thyself" can be regarded as an ancient reference to this construct. Ideas about the self are also discernible in the Homeric writings which expressed the distinction between the physical human body and some non-physical entity or function. There was considerable speculation about the nature of the soul among the Greeks. With the coming of Christianity it became accepted that man was composed of two parts - a body and a soul. This remained the presiding view up to the Middle Ages.

Descartes' statement "I think, therefore I am." reflected man's search for identity. This marked a break with mediaeval thought and "knowing" was considered to be the self's primary function. Thus for Descartes this idea led to the nature of the mind or soul. For many years there were contrasting views on the mind-body problem. Philosophers such as Locke, Hume and Kant each advanced their theories on the relationship of the mind, self, soul and reason.

During the nineteenth century discussions of the notion of the self became more detailed and differentiated. Most of these ideas were developed almost exclusively on the basis of reports of direct conscious

experience. This was usually the theorist's experience. For a time this method of introspection was dominant.

As psychology slowly emerged as a separate subject from philosophy it took with it the construct of the self. Hearnshaw (1964, P.138) (1) in summarising the contribution of James Ward's work on the philosophy of the mind says that the self can never be left out of any psychological analysis.

William James (1890) (2) in his classic chapter on "The Consciousness of Self" provided the foundation for much of the recent theorizing about the self. The American social psychologist G.H. Cooley helped to cement the basis for an early social view as to the origins of the self. His "looking glass theory" became a milestone along the path of self theory. However, introspectionists such as Calkins (1915) (3) also continued to study the self.

The next thirty years saw little attention being paid to self theory. This was probably due to the impact of the behaviouristic movement in psychology. Their tenets refused to acknowledge the role of conscious experience. Instead they focused upon stimulus-response theory as a purely objective experimental branch of natural science.

In the 1940's there was a resurgence of interest among psychologists in the construct of self. It became the discussion point for both sociological and psychc-analytical theories, such as Mead and that of Freud. These two traditions to some extent complemented each other in their different approaches to the influences on self, with respect to family and social factors.

Interest in the self was maintained by the neo-Freudians in their efforts to renovate and elaborate Freud's theories, while Sullivan, for instance, initiated his own formulations on the construct of self. In addition to these influences many clinical psychologists tossed their ideas into the mainstream of self theory. One of the most important contributors was Carl Rogers. In psychotherapy he formulated a

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(1). Hearnshaw, L.S. (1964) A Short History of British Psychology 1840-1940.
(2). James, W. (1890) Principles of Psychology. Macmillan.
(3). Calkins, M.W. (1915) "The Self in Scientific Psychology" American J. of Psychol. 26, 495-524.

thorough statement of self theory and attempted to back it up with empirical studies.

Since that time an enormous volume of theoretical and empirical studies has accumulated. Indeed, as stated by Wylie in 1968, all the theories of personality which have been put forth within the last two decades assign importance to self-referent constructs.

This section was intended only to give an overview of the main landmarks in self theory using a historical perspective. It was designed as a foundation for the remaining sections of this chapter which will take a more critical look at the tenets of the various theories which include self-referent constructs.

EARLY PSYCHOLOGICAL INTEREST.

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Although some psychologists had considered self-awareness in objective terms prior to 1890, it was William James who became the turning point in bringing the self to the attention of psychologists. According to James (1890 P.291) (4) a man's self, in its widest sense, is the sum total of all that he can call his. This is a very general and all embracing concept of the self. Indeed, one may argue that it is too general because James would consider a man's self to include his body, psychic powers, clothes, house, wife, children, ancestors, friends, reputation, works, lands, horses, yacht and even his bank account.

From this wide interpretation of a man's self, James narrows it down to four constituents. These are:

1. The Material Self. This is concerned with the cravings of the body, a desire for personal adornment, acquisitive impulses and all domestic comforts.
2. The Social Self. This sense of self pertained to status, prestige and friendship. This sense, James argued (P.294), is the result of

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Wylie,R.C. (1968) "The present status of self theory." In: Borgatta,E.F. and Lambert,W.W. Handbook on Personality. Ch. 12. Chicago: Rand McNally.

(4) James,W. (1890) Principles of Psychology. Macmillan.

the recognition a man gets from his friends. Thus a man could have as many social selves as there are individuals who recognise him.

3. The Spiritual Self. This refers to man's self that is involved in the pursuit of intellectual goals, ethical and religious aspirations. All emotions and desires would fit into this category.

4. The Pure Ego. This would include the stream of thought which makes up the individual's sense of personal identity.

William James has received high praise for being one of the first psychologists to have written extensively on the self. Reviewing his work some ninety years later leads me to suggest that the value of James' work on the self lies not so much nowadays in its specific content but rather on its effect. In other words, the theory was acceptable in its widest terms, but more importantly it focused psychological attention on the concept of self and initiated further psychological thought on the construct.

Introspectionists also played their part in the early theorising about the self. One of the main psychologists in this field was Mary Calkins. She wrote extensively on the topic over a period of time. Calkins (1915) (5) maintained that the characteristics of the self comprise an enduring structure, an individuality, that is fundamental to one's experiences and that it is related to its environment.

The method of approach used by introspectionists is not scientific enough for many writers. Their ideas were said to be too vague. Diggory (1966 P.38) (6), in reviewing the work of Calkins, made the biting comment that although she had decided views of her own about what she meant by "the self" it was hard to tell exactly what they were. The influence of introspection on the construct of self has been minimal.

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(5). Calkins, M.W. (1915) "The Self in Scientific Psychology" American J. of Psychol. 26, 495-524.

(6). Diggory, J.C. (1966) Self Evaluation: Concepts and Studies. John Wiley and Son, New York.

SOCIO-PSYCHOLOGICAL CONTRIBUTIONS.
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Credit for an early sociological interest in the self is usually given to Charles H. Cooley. He recognised that the social milieu from which a person comes will contribute heavily to how a person views himself. He developed his theory of the self as one that is primarily concerned with how the self grows as a consequence of interpersonal interactions.

Cooley (1902, P.136) (7) defined the self as all that is designated in common speech by the pronouns of the first person singular, i.e. 'I', 'me', 'my', 'mine', and 'myself'. The distinctive thing for Cooley is the "my-feeling", or sense of appropriation.

The now famous concept of the "looking-glass self" was introduced by Cooley. Writing about the social self he says it "...might be called the reflected or looking glass self.

'Each to each a looking glass
Reflects the other that doth pass' " (P.152)

Thus, as we see our physical appearance in a mirror; so in imagination, we perceive in another's mind some thought of our appearance, manners, aims, deeds, character, friends and so on. Perceiving these ideas we are then variously affected by them.

I feel it is important to add, and many writers overlook the fact, that Cooley qualified his idea of a looking glass self. Essential to his theory is not just the mere reflection of one's self, but the imagined judgement of others and more importantly that the character and weight of that other person, in whose mind we see ourselves, makes all the difference to our feeling.

Another contribution made by Cooley to self theory literature was his idea of the "internalized other". The individual comes to develop a mental image of others with whom he interacts. These mental images for that individual become real facts. To conclude this brief review of Cooley's work, it should be noted that for him the social self

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(7). Cooley, C.H. (1902) Human Nature and the Social Order. New York: Charles Scribner.

feeling a person has is of major importance. It is one that with all normal people will remain, in one form or another, as the mainspring of endeavour and a chief interest of the imagination throughout life.

Historically, with one or two exceptions, wide-spread psychological interest in the self-concept declined for some years. The self theory of George H. Mead had a strong and important impact in refocusing attention on the construct of the self. Mead, who considered himself a social behaviourist, endeavoured to show that the mind and the self are totally social in nature and that language provides the mechanism for their emergence.

Ideas in self theory are often ambiguous so it is satisfying to find a theorist like Mead (1934, P.136) (8) who states clearly that the self has the characteristic that it is an object to itself. Thus for Mead his conception of the self is that of an object of awareness rather than a system of processes.

The development of the sense of self is also dealt with by Mead. The sense of self is not present at birth. He saw play as being instrumental in its development. If players take part in games with rules then according to Mead this helps to fashion their social play. A self is only attainable within social experience.

Mead's view that an individual possesses a self only in relation to the selves of the other members of his social group gave rise to the notion of the "generalised other."This modified and extended Cooley's idea of a looking-glass self. The all important social group that forms a person's sense of self is called the generalised other.

Another concept that is related to the looking-glass self is that of a "significant other". This phrase is a landmark in self-theory literature. It has been also the focal point of numerous research studies. The term is usually attributed to Harry S. Sullivan. For him, as for Cooley and Mead, the self arises out of social interaction. However, Sullivan emphasized the interaction of the child with significant others, particularly the mother figure, rather than with society in general. This term generally has been gradually extended over the years by other writers to include all those who are instrumental in shaping an individual's sense of self. Thus a "significant

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(8). Mead, G.H. (1934). Mind, Self and Society. University of Chicago Press.

other" is any person whose opinion is important to the child, and hence could influence his/her self-concept.

Sullivan was interested in the analysis of anxiety. He was concerned with the relationship between anxiety and the psychic mechanisms that all individuals devise to evade anxiety-producing experiences. Obviously, his ideas depart from those of Cooley and Mead. Sullivan's sense of self (1971) (9) is an organization of educative experience called into being by the necessity to avoid or minimize incidents of anxiety.

This self system eventually develops into a stable, self-perpetuating and independent aspect of the personality. Children will internalise those values and prohibitions that will help the achievement of satisfaction in ways that are approved of by "significant others". By mid-infancy these are organised into the "Good-me", "Bad-me", and the "Not-me."

To summarise Sullivan's contribution to self-theory, one would say his self system arises from the individual's interpersonal experience in such a way as to lessen the effects of anxiety.

THE NEO-FREUDIANS.

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The brief treatment of Sullivan's ideas above seem to be a convenient link from the tenets of the social self theorists such as Cooley and Mead to those of the so called neo-Freudians. The latter group, as clinicians, based their formulations on the retrospective reports of patients in treatment. This section will review their contribution to self theory. The consideration of psychologists such as Freud, Adler, Horney and Sullivan is perhaps a little tenuous in that many differing views are expressed. They are not self theorists as such, rather psychologists who have advanced theories in which a kind of self referent construct may be discernible.

Freud's contributions to self theory , for instance, were by no means direct. He built the total personality around his concepts of

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(9). Sullivan, H.S. (1971) "Beginnings of the Self-System." In Personality: Readings in Theory and Research.

Southwell, E.A. and Merbaun, M. Brooks - Cole.

the id, ego and superego. Without going into a lengthy discussion of Freudian psychology, it would appear that his concept of the ego, which acted between the id and the outside world, is somewhat similar to the self concept. However, as noted by Wylie (1968 P.728) (10), Freud did not attach much importance to the role of the ego until later in his writings.

Freud assumed that man's behaviour is motivated by inborn instincts. Adler added the effect of social experience. He (1935, P.5) (11) believes that not only does heredity give man certain abilities but that the environment he lives in gives him certain impressions. These given abilities, and the impressions gained, together with the interpretation a man makes of them, determines that man's attitude to life. Thus a man will construct his own personality by his interpretation of the raw material of heredity and experience. It is at this point that Adler's views are seen to contribute to self-theory. His self is a subjective system by which a person interprets his experiences.

Two concepts form the basis of Adlerian psychology i.e. "style of life" and the "creative self". Adler considered that every person has the same goal in life, namely that of superiority, but there are many different "life-styles" for achieving that goal. Thus each person arranges his style of life in such a way as to achieve superiority over other people who are seeking similar goals.

A person's style of life is formed early in childhood. Experiences are then assimilated according to this unique style. Hence every child adopts certain means which promote his life-style. In this way his style of life becomes set. The role of Adler's creative self is to intervene between the stimuli acting upon the child and the responses he makes to them. This interpretation will determine the child's behaviour far more than the 'reality' of the situation. Thus, the main idea of Adler's self is the individual's attempt to make sense of situations in such a way as to preserve or enhance their style of life.

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(10). Wylie, R.C. (1968) "The Present Status of Self Theory" In: Borgatta , E.F. and Lambert, W.W. Handbook on Personality. Ch. 12. Chicago: Rand McNally.

(11). Adler, A. (1935) The Fundamental Views of Individual Psychology. International Journal of Psychology. 1, 5-8.

The effect of social situations on basic anxiety is the main contribution of Karen Horney to self-theory. She considered that there were many adverse factors in the environment that could produce anxiety, and thus insecurity, in a child. People use various means to adjust to their anxieties and Horney (1945) (12) classifies three

1. Moving toward people (compliance or love)
2. Moving against people (aggression or power)
3. Moving away from people (detachment or independence)

It is Horney's discussion of the effects of anxiety and the defences she sees against anxiety that has relevance to self-theory. One method she suggests of coping with anxiety is to form an "idealized image" of one's capabilities. This ideal has the effect of bolstering self-esteem. However, if the levels set by this image are unrealistic then dissatisfaction will creep in. The idealized image thus plays an important role in how a person evaluates himself.

This loose grouping of Sullivan, Adler and Horney together illustrates the social processes at work in each of their theories. It also led to the emergence of important concepts within self-theory, based upon the effect of society, such as the significant other, the creative self and the idealized image.

A RESURGENCE IN SELF INTEREST.

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From about the mid-nineteen forties there has been a vast quantity of literature which has dealt with the self. It was around this time that quantitive measures were being introduced in an attempt to measure the individual's self concept. There was also a growth in research work on the self, although this was mainly confined to correlational studies. However, since this chapter is dealing with the theoretical aspects of self theory, discussion here will be limited to those theorists who attempted to introduce new ideas in self theory or who tried to expand or clarify various aspects of previously stated self theory.

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(12). Horney, K. (1945) Our Inner Conflicts: A Constructive Theory of Neurosis.
New York: W.W. Norton.

A bone of contention about this period of time was the discussion of the self and the ego. Chein's article (1944) (13) was typical of the theorising concerning the differences in opinion about the meaning of self and ego. The two concepts for Chein are not identical because we are directly aware of the self, but not of the ego-functions. He saw the ego as a motivational - cognitive structure built up around the self. It would be pleasant to report that the differences between the self and the ego have been resolved, but unfortunately the terminological confusion surrounding these two constructs still exists.

Bertocci (1945) (14) discussed not only the relationship of the self and the ego but considered the personality as well. He extended self theory by introducing the concept of the "psychological self". This he advocated as a way of sidestepping the difficulties associated with philosophical conceptions of the self. The self as seen by Bertocci is the agent ever organising its activities in relatively stable personality patterns and evaluating its adjustments in the light of environmental demands.

Changing direction away from the ego, Hilgard (1949) (15) considered a concept of self was necessary in understanding the mechanism of adjustment in motivational theory. He considered that unaided introspection is bound to yield a distorted view of the self and thus introduced the term the "inferred self". This self will be inferred from the data open to an external observer. This "inferred self" should give a coherent account of motivated behaviour. The only way to do this would be to explain

1. The continuity of motivational patterns
2. The genotypical patterning of motives
3. How the important human motives are inter-personal both in origin and expression

However, in my view, although Hilgard sets up the conditions necessary to infer a self concept he does little to test them. This leaves his ideas as interesting only on a historical level.

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(13). Chein, I. (1944) "The Awareness of Self and the Structure of the Ego" Psychological Review 51, 304-314.
(14). Bertocci, P.A. (1945) "The Psychological Self, the Ego, and Personality." Psychological Review. 52, 91-99.
(15). Hilgard, E.R. (1949) "Human motives and the concept of self." American Psychologist 4, 374-382.

In contrast, a major contributor to self-theory and one of the first psychologists to develop the idea that normally functioning people strive for consistency was Lecky (1945) (16). The self-concept for him was the nucleus of the personality. He argues (P.135) that in order to be immediately assimilated, the idea formed as the result of a new experience must be felt by the person concerned to be consistent with the ideas already present in his personality. On the other hand, ideas whose inconsistency are recognised as the personality develops must be expelled. Throughout life there is a constant assimilation of new ideas and the expulsion of old ideas. The self concept has a key role to play in this process. It is the nucleus of the personality and as such it determines which concepts are to be assimilated. This approach to self was a major step forward because research could test it.

In the preceding pages many different ideas concerning the self have been reviewed. However, few of the theories have yielded any scientific knowledge about the self. So far there has been a mass of theorising but little empirical study. This omission from self theory was remedied by a group of psychologists who dealt with the phenomenological notion of the self. These researchers had a massive effect on future research and some of the main contributors will be reviewed next.

PHENOMENOLOGICAL CONTRIBUTIONS.

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Snygg and Combs are two leaders in the field of phenomenological analysis of the self. Their views are somewhat similar to that of Lecky. They believe (1959, P.129) (17) that the fundamental need of the organism is the search for adequacy. To achieve the adequate self the individual needs to develop a high degree of consistency. Thus the search for adequacy

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(16). Lecky, P. (1945) Self-Consistency: A Theory of Personality New York: Island Press.
(17). Combs, A.W. and Snygg, D. (1959) Individual Behaviour. New York; Harper and Row.

must necessarily involve the individual in a search for self consistency as well. Combs and Snygg's phenomenal self (P.153) perpetuates itself by permitting only such perceptions as are consistent with its already existing structure. The similarity to Lecky's views is obvious. However, this is only one aspect of their self theory and to do them justice, a resume of their ideas is given below.

The basic assumption underlying the theoretical position of Combs and Snygg is that all behaviour is both determined by and related to a person's phenomenal field. This field not only includes all a person's perceptions about himself but those outside himself as well. From this total phenomenal field each person differentiates a phenomenal self. Combs and Snygg suggest (P.126) that this phenomenal self is the organisation of all the ways a person has of seeing himself. It is himself from his own point of view. These perceptions of himself vary widely in their importance for his personaltiy. The phenomenal self is the self in a given situation regardless of its importance. The perceptual field is now further differentiated to include only those perceptions about self which seem most vital or important to the person himself. This organization they call the self-concept. These concepts are the very core of a person's personality.

Thus a very clear model of the self was suggested by Combs and Snygg. The importance of their ideas lies not only in their theoretical formulations on the self, but their work also set in motion many studies to examine the self concept. As they state (P.123) the self is not a very useful scientific concept unless it is precisely defined.

Another phenomenological theorist whose work is of paramount importance is Carl Rogers. Part of his theory also has a great deal in common with Lecky's idea of self-consistency. Rogers (1951, P.498) (18) defines the self-concept as an organised, fluid but consistent conceptual pattern of perceptions of characteristics and relationships of the "I" or the "me", together with values attached

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(18). Rogers, C.R. (1951) Client Centered Therapy. Houghton Mifflin: Boston.

to these concepts. The self-concept, he considers, includes only those characteristics of the individual that he is aware of, and over which he believes he exercises control. There is a basic need to maintain and enhance the self.

Rogers presented a system of psychotherapy which was termed "non-directive". This was built around the importance of the self in human adjustment. The concept of the self has many features which Rogers discusses in a series of nineteen propositions (1951, P.483 cf), but the main ideas seem to be that the self strives for consistency, a person behaves in ways which are consistent with the self, experiences that are not consistent with the self are seen as threats, and the self may alter due to maturation.

The famous phrase "fully functioning person" was introduced by Rogers to describe the person who is in the state of complete congruence of self with experience. This type of person according to Rogers (1961, P.190) (19) could consider each stimulus very carefully and choose the course of action which would come closest to satisfying his needs in that situation.

The work of Rogers is thus very important to self-theory in that it puts forward a clear articulation of views about the self. These ideas or propositions could be tested and thus further empirical work was generated. By no means the least of this research was the initial testing published in Rogers and Dymond (1954) (20).

A POT-POURRI OF SELF-THEORIES.

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In the last thirty years various theories of the self have been postulated. Some have tried to expand previous concepts while others have advanced new ideas. None of these theories attained the importance of those considered in the previous section. However, some of the main theories will be

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(19). Rogers, C.R. (1961) On Becoming a Person. Houghton Mifflin: Boston.
(20). Rogers, C.R. and Dymond, R.F. (Eds. 1954) Psychotherapy and Personality Change University of Chicago Press.

considered here if only to illustrate that theoretical formulations were still being made amid the proliferation of empirical work.

Maslow (1954) (21) for instance, tried to shift the emphasis away from the consideration of sick people to that of healthy people. He reasoned that not enough research had been focused on the individual's strengths; thus he paid little attention to the concepts of hate, guilt, conflict etc. Instead, he considered that man has five basic needs arranged in hierarchical order. The most important of these needs is that of "self-actualization". This was the central concept in his theory and it is the need for self-fulfilment i.e. to achieve one's potential.

To identify this need Maslow studied people, living and dead, who he considered had achieved their highest potential, eg Einstein, Roosevelt, and then listed 15 self-actualizing characteristics that separated them from ordinary people. With regard to self-theory some of these characteristics are interesting and worth mentioning. The people studied tended to be reality-oriented; accepting of themselves, other people and the natural world; and to form profound and deeply emotional relationships with only a few specifically loved people.

Maslow tried to present the "other half" of the picture and concentrated on the brighter side of man's personality. A completely different way of examining the self was suggested by Sarbin (1952) (22) who was interested in the development of the self in terms of cognitive structures.

Sarbin advocates that behaviour is organised around cognitive structures. The self is one such cognitive structure and it is also organised around substructures called empirical selves. The self is not present at birth but is the result of experience and is subject to continual and progressive change. A model was used by Sarbin to describe a developmental sequence of 5 stages beginning with the "somatic self" in the first month of life and finishing with the "social self" at around the age of 2 years old. This social self is not seen as the end, but only as the beginning of

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(21). Maslow, A.H. (1954) Motivation and Personality. New York: Harper.
(22). Sarbin, T.R. (1952) "A preface to a psychological analysis of the self." Psychological Review. 59, 11-22.

the self-organisation which then becomes tremendously complicated by further differentiations in the cognitive structure due to the role-taking process.

The value of Sarbin's contribution to self-theory lies in his attempt to create a model for early self-development. However, it did prove to be a complicated one and, of necessity, one of inference rather than empirical fact. About this time another but more major psychologist than Sarbin was interested in the sequential appearance of the self. This was Gordon Allport.

In order to avoid the confusion between "self" or "ego" functions Allport (1955, P.41 cf) (23) introduced a new term into self theory - the proprium. This concept includes everything in personality that contributes towards a sense of inward unity. The propriate functions suggested by Allport are not innate but develop gradually and in the following sequence.

1. Bodily self; this is the anchor for self-awareness
2. Self-identity; child recognises himself as a distinct point of reference through acquiring language.
3. Self-esteem; an individual's evaluation of himself
4. Self-extension; possessions denoted by the words "mine", "my" but not any parts of the body
5. Self-image; how others view the individual
6. Rational thinking; occurs between 6 and 12 years of age when the child exercises reflective and formal thought.
7. Propriate striving; this gives a sense of purpose and aims at long term goals.

Together these seven functions comprise Allport's proprium. Although they are of interest as a contribution to self theory and often discussed at length in the literature, they never generated the kind of research necessary to gain them wide acceptance.

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(23). Allport, G.M. (1955) Becoming. New Haven: Yale University Press.

SUMMARY.
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The concept of self began as a philosophical idea. In 1890 William James laid the foundation for modern psychological thought on the self. Later the effect of social relationships on the development of the self was examined by social psychologists.The idea of a "looking-glass" self was introduced by Cooley and the notion of "generalised others" was expanded by Mead. The interaction of the child with "significant others" was emphasized by Sullivan. The so called neo-Freudians introduced concepts such as the "creative self" and "idealized image".

The 1940's saw a resurgence of interest in the self. The concept of "self-consistency" was advanced by Prescot Lecky and phenomenological psychologists such as Combs and Snygg, and Rogers considered the concept of the self to be essential in explaining human behaviour. The last thirty years has seen an upsurge in research studies concerning the self.

Today, the self-concept is the subject of an enormous body of theory and research which has been amassed over the years. Some of these theories have been reviewed in this chapter. What needs to be answered now is "What really is the self?" The next chapter will illustrate the difficulty in answering this question.

CHAPTER TWO. SOME SELF THEORY DILEMMAS.

INTRODUCTION.

What really is the "self"? It is an impossible task to answer this question by trying to abstract its essence from past literature. Scores of theories and definitions of "self" have been put forward. Many different facets of the self have been described such as creative self, somatic self, ideal self, physical self, phenomenal self etc. Concepts of the self have been advanced in the form of self prefixed terms such as self-actualization, self-image, self-identity etc. Probably the two most popular ideas from the extensive list of self terms are self-concept and self-esteem. However, exactly what the difference is between these two terms is difficult to assess, as will be illustrated at the end of this chapter.

The format of this chapter is to analyse the debate, or at times the confusion, concerning the nature of the self and to give consideration to the notion of self-concept.

IS A CONCEPT OF SELF USEFUL?

It has been asked whether a construct of self is even necessary in psychology. Allport (1955, P.36) (1) poses this question and concludes that his answer can not be categorical since it depends upon the particular usage of "self" that is proposed. The particular notion of the self that he objects to is that of a "homunculus" which is inaccessible to psychological analysis. Most writers on psychology, eg Hall and Lindzey (1957, P.468) (2),

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(1). Allport, G.M. Becoming. New Haven: Yale University Press. (1955).
(2). Hall, C.S. and Lindzey, G. (1957) Theories of Personality John Wiley and Sons; New York.

state categorically that the self is not a metaphysical or religious concept. This idea was also rejected as early as 1890 when James viewed the concept of the soul as entirely superfluous as a means of accounting for the facts of conscious experience.

The behaviourists' view is that the construct of self is totally unnecessary. Watson (1919) (3) considered it was possible to define psychology as "the science of behaviour" and the use of terms such as consciousness, mental states, mind or the like was unnecessary. For him a detailed and thorough analysis of the individual's observable behaviour was all important. This point of view, for a time, devalued the study of the self and diminished its worth as a psychological concept. It was not to have a lasting effect.

Self-referent constructs soon became widespread in psychology. Many theorists, as shown in Chapter 1, consider that it is not only a useful explanatory construct but also a necessary one. Indeed, for the phenomenological theorists it is the most central concept in psychology.

The answer to the question posed at the beginning of this section must surely be in the affirmative, if only because many psychologists have found it so. This does not of course come to terms with the spirit of the question. Simply because it has been found useful by some theorists does not mean it is necessary. The usefulness of the concept of self depends very much on one's own theoretical viewpoint. Suffice to say that innumerable writers have found it not only useful but necessary.

This leads onto another dilemma in self-theory. If the idea of the self is useful and or necessary what then is its nature? Is it useful because the self "exists", or is it useful only as an explanatory construct? As one soon comes to expect in self-theory, there is no one simple answer.

THE SELF: A REALITY OR EXPLANATORY CONSTRUCT?

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This dilemma points to the disagreement over whether the self is an existing entity or

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(3). Watson, J.B. (1919) Psychology: From the Standpoint of a Behaviourist. J.B. Lippincot Company.

whether it has been invented as an explanatory construct. As Gordon and Gergen (1968 P.2) (4) point out some investigators speak of the self as if it were an individual's material possession. This concept of self is considered as if it had real world properties.

Theorists who propose that the self actually exists consider the reality of subjective life. Combs and Snygg for instance, take the view that to the individual himself the phenomenal self is always real. However, they do qualify this statement by saying (1959, P.123) (5) that the question of whether a real self exists or does not exist is primarily an academic or philosophical question. For them no one can observe a self directly, but what is important is that the ways in which a self is perceived can be studied and this leads to an understanding of human behaviour.

In all fairness to Combs and Snygg, in my view what they are saying is that it is not psychologically important whether or not a "self" really exists, but rather what constitutes reality for the individual. If it perceived as real then the effects of this will be real to that individual.

The opposing view of the self is that it is a construct which has utility for understanding and predicting behaviour. This concept of self is thus one of invention. Viewing the self as an explanatory concept with hypothetical properties makes the concept open to scientific validation. Lowe (1961) (6) has no doubts as to what constitutes the self "...the self is an artifact which is invented to explain experience". Wylie (1968) (7) considers that the reasons some theorists have thought it necessary to invent self-referent constructs relate to theory building, but also to personal opinion concerning the theorist's view of human nature. To sum up this section many writers would agree with Johnson (1968) (8) who considers that the

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(4). Gordon, C. and Gergen, K.J. (1968) The Self in Social Interaction. John Wiley and Sons.
(5). Combs, A.W. and Snygg, D. (1959) Individual Behaviour. New York; Harper and Row.
(6). Lowe, C.M. (1961) "The self concept: fact or artifact." Psychological Bulletin 58, 325-336.
(7). Wylie, R.C. (1968) "The present status of self theory" In: Borgatta, E.F. and Lambert, W.W. Handbook on Personality. Ch. 12. Chicago: Rand McNally.
(8). Johnson, H.W. (1968) "Persons and Selves". Philosophy and Phenomenology Research 28, 205-212.

existence of a "self" is only a sort of hypothesis used to explain behaviour.

THE SELF AS SINGLE OR MULTIPLE.

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Frequently in the literature there are references to "the self". This would seem to imply the idea of "self" as being that of a single entity. While some theorists would agree with this view, care needs to be taken because often references to "the self" disguise the idea that it may, in fact, be considered by the writer to be multiple in character.

The idea of the self being unitary in nature emphasizes that the self construct needs to be studied as a whole. It thus has no independent self-referent constructs that can be studied for their own sake. Such an approach is endorsed by Rogers (1951) (9). His third proposition considers that the organism reacts as an organised whole to its phenomenal field. It is at all times a total organised system in which alteration of any part may produce changes in any other part. This idea is quite in line with Rogers' committed view to understanding and studying the person as a unified whole. Indeed Hjelle and Ziegler (1976, P.309) (10) consider that although Rogers' holistic emphasis is evident throughout all his theorizing it is most evident in his construct of the self.

Contrasting with this is the view that the self is multiple in character. This arises from the observation that an individual's behaviour is not only variable from one situation to another, but can be inconsistent. Coopersmith (1967, P.21) (11) would agree with a multiple self and explains that rather than study the multidimensional constellation of concepts of the self in its entirety he would rather focus upon only one dimension - that of evaluation. Furthermore, he considers that although "...it is clearly possible to study any particular dimension or group of dimensions of the self-concept some seem to warrant greater attention than others."

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(9). Rogers, C.R. (1951) Client Centered Therapy. Houghton Mifflin: Boston.

(10). Hjelle, L.A. and Ziegler, D. (1976) Personality Theories: Basic Assumptions, Research and Applications. McGraw - Hill.

(11). Coopersmith, S. (1967) The Antecedents of Self Esteem. W.H. Freeman Co; San Francisco.

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The tendency to view the self as single or multiple in character has relevance for research methodology. A single measure of self, i.e. a global score, would imply the view of the self as a single entity. A measure that investigates specific areas of the self-construct would be biased in favour of treating the self as multiple in character. Zirkel (1971) (12) cites instances of differing results being obtained when global and school related self-concept measures were used.

Part of my study is designed to investigate the variation of a single measure of self and specific measures of self with variables such as age, sex, ability and family characteristics. My view is that the self is multiple in nature and that the specific areas of self-concept rather than a global score could be of greater benefit in assessing the relationship between the self and variables such as those above.

CONFUSION IN SELF TERMINOLOGY.

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An ever present problem in self theory literature is the variety of terms used and the difficulty in differentiating between them. The discussion as to whether the construct of self is regarded as the person's feelings about himself or whether it is a group of psychological processes which govern behaviour is a case in point. The former construct is usually spoken of as the self as object and the latter as self as subject.

Let us assume for the sake of the argument that there is a difference between these two concepts, a distinction incidentally that is often blurred by some writers. A convention has been suggested by Hall & Lindzey (1957, P.468) (13) to denote these concepts. They suggest that the self-as-object i.e. the person's feelings about himself, should be called the "self" and the self-as-subject should

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(12). Zirkel, P. (1971) "Self-concept: ethnic group membership and mixture" Review of Educ. Research. 41, 211-225.
(13). Hall, C.S. and Lindzey, G. (1957) Theories of Personality John Wiley and Sons; New York.

be termed the "ego". Although I have restricted the following examples to three, from a choice of many, they will illustrate the confusion in self terminology.

Chein's (1944) (14) view that the self is a content of awareness while the ego is a motivational-cognitive structure built up around the self seems to be in accord with the convention above. However, Bertocci's terminology (1945) (15) is a direct switch. He considers the self-as-object to be the ego and the ego-as-process to be the self. To further confuse the issue Combs & Snygg (1959) (16) see their phenomenal field as both object and subject, since it is a "doer" because it completely determines behaviour and it is the object because the phenomenal self includes all the characteristics that the individual considers to be "himself".

Despite the frequency of use of both terms i.e. self and ego, there is still no unequivocal definition available for either. Phillips (1964, P.104) (17) notes that very often the terms are used as interchangeable though they represent different aspects of the individual. Furthermore, according to English and English (1958) (18) they delineated four different meanings given to "ego" and seven meanings acredited to "self".

Only a few examples i.e. ego, self, self-as-object, self-as-subject, have been used to illustrate the turmoil present in self-referent terminology. There are many other examples, such as self concept and self esteem to which I will return in the next section. However, the main point is that self-referent constructs often overlap in meaning and indeed, a self-referent label used by one researcher can mean the opposite to that favoured by another.

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(14). Chein, I. (1944) "The awareness of self and the structure of the ego" Psychological Review 51, 304-314.
(15). Bertocci, P.A. (1945) "The psychological self, the ego, and personality." Psychological Review. 52, 91-99.
(16). Combs, A.W. and Snygg, D. (1959) Individual Behaviour. New York; Harper and Row.
(17). Phillips, A.S. (1964) "Self concepts in children" Educ. Research. 6, 104-109.
(18). English, H.B. and English, A.C. (1958) A Comprehensive Dictionary of Psychological and Psychoanalytical Terms. Longmans, Green; New York.

THE SELF CONCEPT.
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Many researchers examine the self-concept without defining it. The reader is left to form his own view of the self-concept or, it often seems to be assumed that the self-concept is so well understood that it doesn't need defining! Zirkel (1971) (19) counted 15 definitions of self-concept explicitly cited among the studies he reviewed. This section will examine the use of the terms self-concept, and self-esteem. Finally, I will define the self-concept as it will be used in the present study.

Victor Raimy was the first researcher to use the term "self-concept" in an unpublished doctoral dissertation in 1943, written under the guidance of Carl Rogers. The self-concept according to Raimy (1948) (20) is the map which each person consults in order to understand himself. The idea of self-concept was developed more thoroughly by Rogers (1951, P.136) (21) who thought of it as an organised configuration or perceptions of the self which are admissable to awareness. Part of his definition included such elements as the perceptions of one's characteristics and abilities and the concepts of the self in relation to others.

A whole list of definitions could be inserted here; however, only the common ground which exists between the various definitions of self-concept will be stated. The self-concept is viewed as the way an individual perceives himself and his behaviour. This is strongly influenced by the way others perceive him.

Throughout the literature on the self, references are made to the self-concept and to self-esteem. It is difficult at times to assess if there is any difference between the terms since the way they are used often appear to be synonymous. Coopersmith (1967, P.4) (22) considers self-esteem to be the evaluation the individual makes and customarily maintains with regard to himself. It is the

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(19). Zirkel, P. (1971) "Self-concept: ethnic group membership and mixture" Review of Educ. Research. 41, 211-225.
(20). Raimy, V.C. (1948) "Self-reference in counseling interviews" J. Consult. Psychol. 12, 153-163.
(21). Rogers, C.R. (1951) Client Centered Therapy Houghton Mifflin: Boston.
(22). Coopersmith, S. (1967) The Antecedents of Self Esteem. W.H. Freeman Co; San Francisco.

individual's personal judgement of worthiness. This definition stresses that self-esteem is the evaluative attitudes a person holds. In contrast, Wylie (1968, P.740) (23) considers the self-concept to include a person's evaluations as well as his cognitions.

I have no doubt that the terms self-concept and self-esteem have been used as identical constructs in the literature. Many examples are present in which self-concepts are referred to when the measuring instruments are labelled "self-esteem inventories", and vice versa. However, some authors do maintain that there is a difference between the terms.

Calhoun and Morse (1977) (24) attempted to clarify the distinction as they saw it. For them, self-concept is the way an individual perceives himself and his behaviour and it includes his opinion of how others view him. Self-esteem is the individual's "satisfaction" with the self-concept. They consider that one can have a negative self-concept. However, Germain (1978) (25), while agreeing that the self-concept is the information or cognitions an individual has about his "self" and that self-esteem is the judgement and feelings about the "self", declares that it is meaningless to talk about a negative self-concept. He reasons that it is not possible to have negative awareness or information nor to have a negative organisation of information. Beane and Lipka (1980) (26) would also agree that the self-concept is descriptive, while self-esteem is valuative, and they call for research that explores self-concept and self-esteem as related but distinct constructs within self-perception.

The distinction thus drawn between self-concept and self-esteem, in my view is such that even more confusion could arise in self terminology. It is almost impossible to have information about one's self without an evaluative aspect being present. A concept of one's

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(23). Wylie, R.C. (1968) "The present status of self theory" In: Borgatta, E.F. and Lambert, W.W. Handbook on Personality. Ch. 12. Chicago: Rand McNally.
(24). Calhoun, G. and Morse, W.C. (1977) "Self-concept and self-esteem: another perspective." Psychology in the Schools. 14, 318-322.
(25). Germain, R.B. (1978) "Self concept and self esteem re-examined" Psychology in the Schools. 15, 386-390.
(26). Beane, J.A., and Lipka, R.P. (1980) "Self-concept and self-esteem: A construct differentiation" Child Study Journal 10, 1-6.

ability, worth and so on is not built up in the absence of the evaluation of their merit. The point at issue is whether a self-concept can be developed in isolation without an evaluation of its worth, i.e. can a self-concept develop without a concept of self-esteem being necessarily part of it? The two are bound together intimately.

Another point concerning the distinction of self-concept and self-esteem as suggested by Calhoun and others is that many self-concept measuring techniques do in fact have valuational aspects. Would these be renamed joint self-concept and self-esteem measures? The attempt to devise self-esteem techniques which assess the evaluation of a person's self-concept or the design of self-concept techniques that only measure descriptive data without any form of judgement of satisfaction would pose innumerable problems.

This present study is concerned with children's self-concepts and thus it is pertinent at this stage to define what meaning I propose to give to the self-concept. The work of Burns (1977) (27) has influenced the writer's conceptualization of the self-concept.

The self-concept is a person's perception of himself. It includes all the beliefs a person has concerning himself. These perceptions are not simply descriptive but are also evaluative. In addition a person's behaviour or response in a given situation could be, and often is, affected by that person's concept of himself. This definition of self-concept includes concepts of belief, evaluation and behaviour response. In this respect the self-concept can be considered as a set of self-attitudes. The empirical work in Part 2 of this study is a measure of those self-concepts, considered as a set of self-attitudes.

SUMMARY.

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Many psychologists consider the concept of self to be a necessary construct. However, the self needs an operational definition to

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(27). Burns, R.B. "The self concept and its relevance to academic achievement" In: Child,D (Ed.) Reading in Psychology for the Teacher. Holt, Rinehart and Winston, London. (1977).

make it a useful concept. The consensus of opinion among psychologists is to regard the self as an explanatory construct for understanding human behaviour. The self is also usually considered to be multi-dimensional in nature.

Many terms in self-theory are confusing and difficult to delineate. Although the term "self-concept" was first introduced by Victor Raimy in 1943 no one definition of the self-concept has gained universal acceptance. Furthermore, confusion often occurs in the interpretation of self-concept and self-esteem. Finally, the self-concept was defined, with regard to this present study, in terms of a set of self-attitudes.

So far little mention has been made of self development. The growth of the concept of the self in children is the main theme of the next chapter.

CHAPTER THREE. A THEORETICAL CONSIDERATION OF SELF DEVELOPMENT.

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INTRODUCTION.

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Self theory often argues that knowledge of a person's self-concept enables theorists to predict his behaviour. Thus any modification of the self-concept should result in predictable changes in behaviour. It is therefore important to identify those influences that strongly affect the development and maintenance of the self-concept.

The identification of these influences remain, however, limited. According to Fitts (1971, P.27) (1) most of the available literature theorizes, speculates, hypothesizes and questions - there is little hard research data. The reasons for this he considers to be insufficient experimental work in developmental psychology generated by self-theory; this lack of research arises out of the general problem of measuring "the self" and the specific problem of measuring the self-concepts of young children.

The specific problems of self-concept measurement will be considered later in Chapter 7. The discussion of the experimental work in the field of self-development will be reviewed in Chapters 4, 5 and 6. This present chapter will concentrate on the theoretical aspect of the development of the self.

EARLY DEVELOPMENT.

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There appears to be common agreement among psychologists that the conctruct of self is not present at birth, although some philosophers such as Descartes and Kant assume that

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(1). Fitts, W.H. et al (1971) "The Self Concept and Self-Actualization". Research Monograph No.3, Nashville, Dede Wallace Center.

a sense of self is inborn. A vague form of self is suggested by Combs and Snygg (1959, P.132) (2) prior to birth. They consider that some kind of perceptual field exists for every individual even before birth. Its precise character is closed to our understanding, but they assume that it is vague and undifferentiated, being restricted to the most part to perceptions of pressure.

The birth of the baby begins the major development of the phenomenal self. The consequent discovery of the self is not an easy or simple process, but rather a long and involved matter of exploration and discovery beginning with the differentiations of the distinctions between "me" and "not me".

When assessing the process through which a child becomes aware of himself Jersild (1963, P.116) (3) believes it is, of necessity, one of inference. A very young baby feels a succession of sensations and when he starts to differentiate between these and the conditions that produce them, then the first step in his self-awareness has begun. These ideas are common ground for many theorists and are summed up by Hamachek (1971, P.10) (4) who also considers that the nature of a child's growing awareness cannot be directly assessed, and must be appraised largely through an inferential process.

This process was illustrated in the late nineteenth century by Preyer who observed and wrote about the progress made by his son in his first three years of life. Preyer (1965, P.143) (5) notes that above all it was the attention to the parts of his own body and the articles of his dress that helped along the separation in thought of the child's body from all other objects. The child slowly gains a dim feeling that the "I" exists and as he gets

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(2). Combs, A.W. and Snygg, D. (1959) Individual Behaviour. New York; Harper and Row.
(3). Jersild, A.T. (1963) The Adolescent Self. Macmillan and Co.
(4). Hamachek, D.E. (1971) Encounters with the Self. Holt, Rinehart and Winston; New York.
(5). Preyer, W. Expression and the feeling of self. Reproduced in The Child by W. Kessen, John Wiley & Sons (1965).

older, and by further abstraction, the concept of "I" is formed.

The normal child according to Spitz (1965) (6) seems to show the first sign of awareness of a "non I" around the age of three months. This process of differentiations is aided by the perceptions of the child. As Murphy (1947, P.486 cf) (7) illustrates, the child perceives himself by using his eyes to see his body, his ears to listen to the sounds he makes etc.

The first recognisable stage in self-consciousness for Allport is the "bodily self". This is the child's anchor for his self-awareness. As Allport (1971, P.160) (8) points out, until the child has a fairly definite conception of himself as an independent person he cannot conceptualize his relationship to the surrounding world, and hence lacks the subjective nucleus for the development of his own personality. Several conditions are responsible for the infant's lack of self-consciousness. These are a deficiency in memory, the ungraded character of the infants emotional responses and a deficiency in language.

The growth of language hastens the process of separation between himself and the environment. This was stressed by Mead who considered that the use of language was the mechanism for the emergence of the self. Some information about the development of self has been gained indirectly from a study of early language. For instance, Gesell and Ilg (1943, P.337) (9) show that by about 2 years a child uses "mine", "me" and "I". This indicates that the concepts of self is firmly, if only simply, established in the child's mind.

The notion of regular stages in the early development of self is refuted by Cooley (1902, P.168) (10) who states that the sentiments of the self develop by imperceptible graduations out of the crude appropriative instinct of new born babies, and that their manifestations vary indefinitely in different cases.

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(6). Spitz, R. (1965) The First Year of Life. International Universities Press, New York.
(7). Murphy, G. (1947) Personality. A biosocial approach to origins and structure. Harper and Brothers: New York.
(8). Allport, G.M. (1971) Personality. A Psychological Interpretation. Constable, London. 4th Edition.
(9). Gesell, A.L. and Ilg, F.I. (1943) Infant and Child in the Culture of Today. London, Harper.
(10). Cooley, C.H. (1902) Human Nature and the Social Order. New York: Charles Scribner.

To sum up, one can say that the study of a child's development of self is one of inference. The separation of himself from his environment marks an awareness of himself. The onset of language increases the rate of development of the child's sense of self. The most important influence on the typical child is obviously his parents. Their effect and influence will be considered in the next section.

THE EFFECT OF THE FAMILY.

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Use cannot be made in this section of explicit theories because very few theories dealing with the family exist. There is an overwhelming conviction that the effect of the family must be one of paramount importance in influencing the developing self-concept. However, no systematic theory has been proposed that deals exclusively with the sense of self in family life.

What has arisen over the years are numerous hypotheses and questions concerning the effect of family life and this has stimulated research in this area. This section is dealing with the theoretical background to self-concept development and thus the empirical findings will be delayed until Chapter 4. For the present, some views will be presented which illustrate the ideas commonly examined when the influence of family life is considered on the development of the self.

At an early age the most significant others in a child's life are his parents. In normal circumstances they are the ever present people who control the baby's way of life. The effect of their child rearing practices and early training procedures must be substantial in moulding the development of the child's sense of self.

As the child grows older he assumes his place in the family unit. The inter-relationships present not only with his parents but also with his siblings will contribute to his self-concept. Family variables such as birth order, status, sex and number of siblings will also be important. The main point to consider here for example is not so much the actual birth order, but the attend-

ant responses of the parents to other children and whether they maintain a balance of love between all. From the point of view of self-theory this balance of affection must not only be present but must also be perceived by the child. Many writers would remind us, eg Dinkmeyer (1965, P.189) (11), that it is vital to recognise that in each instance the variables are different enough to bring about a unique individual.

Pride of place is given by Combs and Snygg (1959) (12) to the role of family influences upon the development of their notion of the phenomenal self. They state categorically (P.134) that no experience in the development of the child's concept of self is quite so important or far reaching as his earliest experiences with his family. The feel that even every day interactions, although often seemly prosaic and common place, probably have the deepest and most profound effects upon the development of the self.

The four main areas of influence according to Combs and Snygg (P.136 cf) are worth stating.

1. The family provides the earliest experience of the child's adequacy or inadequacy. These early differentiations of self, as liked or unliked, adequate or inadequate and so on, may change in later life, but never easily or quickly.
2. The family provide experiences for acceptance of self and others.
3. From the family the child first gains feelings of self-expansion and identification with others. This identification grows broader as the child grows older.
4. The family establishes early expectancies of both a general cultural nature, and highly specific ones of what is expected of the child.

A very difficult area to test, but one which appears to have a far reaching effect on self-concept development is the nature of the relationship a child has with his parents. Is the quality of relationships such that it will promote the growth of a healthy self? This is not measured by how many material things the child is given, but rather the depth of feeling or caring that exists

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(11). Dinkmeyer, D.C. (1965) Child Development. The Emerging Self. Prentice Hall, Inc; New Jersey.
(12). Combs, A.W. and Snygg, D. (1959) Individual Behaviour. New York; Harper and Row.

between parent and child. In this respect the personality of the parents plays a dominant role.

Many suggestions have been given to illustrate the family's influence on a child's self-concept. These range from early rearing practices, the family constellation, identification with parents, feelings of self worth, to the nature of the relationship between parent and child. The effect of the family is far reaching, but from an early age another agency is able to influence the child's self-concept. This is the school, and it can play a major part in the child's life for a considerable time.

THE ROLE OF THE SCHOOL.

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By the time children come to school they have already formed ideas about themselves. They could have, depending upon their upbringing, also formed early notions of their ability. The school, the teachers and the other pupils will for at least 11 years be a major influence in shaping their self-concept. Indeed, next to the home the school is probably the most important influence in developing the child's self-concept.

Even the kind of school building could influence some children's self-concept. For instance, if schools are designed as open plan and are staffed by teachers committed to its ideals it seems reasonable to some writers that its influence in shaping children's self-concepts could be different from that of a traditionally built school with traditional timetables and staffed by equally committed teachers. Bysides the building, the internal organisation of the school could be a telling factor. The practice of streaming is a case in point. It is reasonable to propose that this could have a major influence on the way the children perceive themselves in school matters.

The effect of the teacher rather than the kind of school is much more likely to help shape the early self-concept. The teacher has an opportunity to become a significant other in a child's life. This is not achieved simply because he is part of the educational system and as such a figure of authority. The most important factor will be his personality. The way he uses his position, his manner

of speaking to the pupils, his encouragement or otherwise will all have a potent effect on his pupils.

The expectations of the teacher will also modify the child's sense of self. Teachers who expect their pupils to do well often find that the children respond to these higher expectations. The reverse is also true, and the danger is that if a teacher does not expect a great deal from his pupils and he shows it by expression, gesture or manner then he could seriously damage the child's developing sense of self. Teachers should be aware that they can have a considerable effect on children and often the enhancement or the reduction in a child's perception of himself can be long-lasting.

The negative influences of school have been stated by Purkey (1970, P.40) (13). He sees that for some children schools may become places where they face failure, rejection and daily reminders of their limitations. Limiting influences on a child's self-concept could be:

1. The school's disposition to dispense rewards and punishments, successes and failures on a large scale.
2. Certain competitive evaluations that ignore varying sociological backgrounds and differences in ability.
3. The formation of ability groupings that could lead to self-fulfilling prophecies.

However, he does add that these features can be modified by teachers who are aware of the need to prevent negative self-concepts and who want to make worthwhile changes.

As well as the school being an organisation with staff that can enhance or hinder the growth of a child's self-concept it is also a place that caters for large numbers of children in a social context. The child's peer group will also exert their own influences upon his self-concept development. School is not the only place that a

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(13). Purkey, W.W. (1970) Self Concept and School Achievement. Prentice Hall Inc: Engelwood Cliffs: New Jersey.

child comes into contact with his peers, but it is a place that he is obliged to attend and come face to face with large numbers of his fellow peers. The effects of his peers and society in general is considered in the next section.

SOCIAL INFLUENCES.

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A basic tenet of self-theory is that, after the child has managed to separate himself from his surrounding objects, the development of the self continues through a process of social interaction. Many writers eg Sherif & Sherif (1956, P.594) (14), would agree that the self could not develop merely through maturation of the organism. It is formed in a social environment.

The views of Cooley, McDougall, Mead, Adler and Sullivan are really the foundation on which social influences on the developing sense of self are based. Their views underpin all theoretical formations on the self. Although their views were discussed in Chapter 1 a summary of them does have relevance to this section.

Cooley developed the theory of the self as it arose from interpersonal interactions. McDougall (1908, P.155) (15) reiterated the idea of the self as essentially a social product and maintained that it also implied a constant reference to others. He stated that it was not merely a conception of self, but always of one's self in relation to other selves. Social conditions relevant to the individual and his interaction with the social world were central to Mead's view of the developing self. This socially formed self grows only where there is social communication. Sullivan's position is close to the previous writers' in that he argues that a child is subjected to continuous interpersonal situations in which he assimilates "reflected appraisals."

A major factor that can be considered as a "significant other" in a child's development of self is his peer group. Since attendance at school normally widens a child's circle of friends it is thus possible that a child's self-concept could be altered during the time

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(14). Sherif, M. and Sherif, C.W. (1956) An Outline of Social Psychology. Harper and Row.

(15). McDougall, W. (1908) An Introduction to Social Psychology. Methuen & Co: London. (22nd Edition 1931).

spent at school. His peer group is not limited to school of course but it is in school that the range of influence is greatest. The quality of the influence may only be limited to a small peer group that the child plays with both at school and in his immediate neighbourhood.

The peer group is important because it can act as a socializing agency which provides an early experience of social interplay outside the child's family. This interaction can help the child to form his own social and self identity. His peers are used as a means of judging himself, and the child forms his self-concept by gradually balancing his views against those of his peers. The socially derived reflected appraisals of his peers can also lead to an awareness of himself and influence his concept of self.

SUMMARY.

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There are other influences that contribute to a child's developing sense of self such as cultural inferences, adolescence and unconscious self processes. However, since my study is concerned with the self concepts of primary aged school children, and at this age the most significant factors influencing the child are the family, school and the peer group, the above discussion has been limited to these influences.

It is usually accepted that the construct of self is not present at birth. The young baby slowly becomes aware of his sense of self. He is raised in a particular family constellation and from this family atmosphere a self-concept begins to appear. Early assessment of a child's sense of self is one of inference. The self develops as the child separates himself from his environment and acquires language skills. The family atmosphere is probably the most important influence on the child's self-development.

School with its demands, opportunities and expectations further moulds the child's views. This occurs alongside his interaction with his peer group whose attitudes and opinions he has to judge and internalise if acceptable. Only those people who are significant to the child can alter his self-concept.

At this point, bearing in mind that there are extremely few longitudinal studies in the literature and that the use of various self-

concept measures preclude stringent comparative statements, a review of the relevant research on family, school and peers and their effect on self-concept will be undertaken in the next three chapters.

CHAPTER FOUR.

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DEVELOPMENTAL AND FAMILY INFLUENCES ON THE SELF-CONCEPT.

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INTRODUCTION.

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The preceding chapter examined the theoretical aspect of self-concept development. This chapter will review the research findings concerning self-development in two areas. The first area will include the developmental changes in the self-concept up to and including adolescence. Secondly, the influence of the family on self-concept development will be analysed with particular reference to children's perceptions of their parents, child rearing techniques, family relationships and birth order.

In the sections dealing with the developmental changes in the child's self-concept research studies have been limited to those that have examined the variables of age and sex. Furthermore, only those studies which have examined age and sex as the main two variables have been selected. The reason is because numerous studies have considered age and sex together with many other variables. Inclusion at this stage will lengthen unduly this paricular section. Nevertheless, these findings will be reviewed and contrasted with the findings of this particular study in the data analysis chapters in PART 2 i.e. Chapter 15 and 16.

EARLY SELF DEVELOPMENT.

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Theoretical discussions far outnumber the empirical research in early self-concept development. The obvious reason for this is the extremely young age involved and its attendant methodological difficulties. Some studies have taken the use of the first personal pronoun as evidence that at least a primitive stage in the development of self awareness has been reached. Research involving only one child, such as Bain (1936) (1), is interesting but limited in scope. Larger samples have been used by the following two researchers.

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(1). Bain, R. (1936) "The self-and-other words of the child." American J. of Sociol. 41, 767-775.

Basing her study upon the observational records of spontaneous conversations of 203 children enrolled in the nursery school and experimental kindergarten of the University of Minnesota, Goodenough (1938) (2) investigated the use of pronouns by young children. Samples of the child's conversation were made when he was alone in a room with an observer who provided him with toys and picture books, but who avoided direct verbal stimulation as far as possible, and also during a free play hour with other children.

The findings indicated that the percentage of pronouns in the total sample showed little consistent change with age or sex after the age of three. However, pronouns of the first person singular were used far more frequently during play with other children than when the child was alone with an adult. The sex differences found in those aspects of pronoun use that indicated a developmental trend were not large but did favour the girls.

This kind of study is limited in that self awareness is only inferred from the use of personal pronouns and certain children at this age are more articulate than others. This does not necessarily mean that their sense of self is greater - only that they can verbalise their feelings. Nevertheless, Goodenough does provide an interesting example of early self awareness being linked with language.

In a later study with nursery school children Ames (1952) (3) also collected data about the sense of self inferred from the child's own verbalisations as he played unaware that he was being observed through a one-way screen. Behaviour which was also adjudged to express the sense of self was noted by a trained observer. From the results obtained Ames presents a developmental picture of the growth of the self up to four years of age.

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(2). Goodenough, F. (1938) "The use of pronouns by young children: a note on the development of self-awareness" J. Genetic Psychology. 52, 333-346.

(3). Ames, L.B. (1952) "The sense of self of nursery school children as manifested by their verbal behaviour" J. Genetic Psychol. 81, 193-232.

At 1-12 months the infant discovers himself and at about 18 months he strengthens his sense of self by opposing others with his favourite word "No". Shortly afterwards another favourite word is "mine"; while at about $2\frac{1}{2}$ years old some interpersonal relationships are formed. At the age of 3 years, showing less need to strengthen his sense of self, he starts to use the word "we". By the age of 4 years he starts boasting and comparing himself with others. The sense of self, Ames concludes, appears to develop largely in relation to the mother, then other adults and finally in relation to peers.

This attempt by Ames to study the development of the self has its defects. The main one is the selection of data. The problem of inference is again present. The behaviour selected as indices of a sense of self have no true validity. However, it was a worthwhile study in that it does indicate the possible sequence in self development.

The next two studies used samples of older children and illustrate that at this age measurement is somewhat easier. More importantly they highlight the contrasting findings regarding age and sex that are found throughout the research literature.

Using 461 children from kindergarten and from grades 1 and 2 Soule etal (1981) (4) investigated the age and sex differences in components of the self-concept as measured by the Instruction Objectives Exchange Self-Appraisal Inventory. This purported to measure four dimensions of the self i.e. family, peers, scholastic and general components. They found no sex differences present, but did find that the children in the second grade had significantly higher scores than children from the kindergarten or grade 1. Care needs to be exercised in accepting these findings since the sample of 43 children in the second grade is far lower than those tested in kindergarten and first grade i.e. 151 and 267 respectively.

Somewhat differing results regarding sex were found however by

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(4). Soule, J.C., Drummond, R.J. and McIntire, W.G. (1981) "Dimensions of self concept for children in kindergarten and grades one and two." Psychological Reports. 48, 83-88.

Guardo and Bohan (1971) (5). They postulated four necessary, but not necessarily sufficient, characteristics of a sense of self-identity. These were a sense of humanity, sexuality, individuality and continuity. The sample consisted of 116 middle class pupils in kindergarten through third grade at a public school in New York. Results based upon responses to interview questions supported the basic notion that children have a sense of identity that shows age and sex differences. Guardo and Bohan concluded that the sense of self-identity is a developmental phenomenon that parallels Piagetian findings regarding cognitive development in that the responses of younger children and older children show clear qualitative differences. In addition, sex differences in a child's sense of self were minor at age 6 years but increased with age.

The difficulty in this period of early development of the self is one of measurement. In terms of construct validity the findings must be viewed with caution. At best they only indicate the emerging pattern of self awareness. In the next section the use of personal pronouns and the rating of behavioural responses by observers gives way to a "pen and paper" assessment of the self.

MIDDLE CHILDHOOD AND SELF DEVELOPMENT.

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This period of development for the child is often crucial. He is not only aware of himself and his family, but he is attending school and increasing his circle of friends. The fact that this time is a period of considerable growth in self-concept is underlined by Fahey and Phillips (1981) (6). They used a sample of 2,610 Catholic primary school children ranging in age from 6 years to 11½ years. The children completed a self-report measure in answer to the question "Who Am I?" Analysis of the responses suggest significant self-concept change.

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(5). Guardo, C.J. and Bohan, J.B. (1971) "Development of a sense of self-identity in children" Child Development 42, 1909-1921.
(6). Fahey, M. and Phillips, S. (1981) "The self concept in middle childhood: some base line data." Child Study Journal. 11, 155-165.

The breath of self descriptions increased from recognition of a few physical qualities such as motor skills, sex and age to some twenty five categories. These 25 categories included ethnic awareness, ambition and ideal self. The older subjects chose properties that differentiated them from their peers which indicated an increased sense of identity. The value of this research lies in the direction that these increased categories took. One would obviously expect a greater number of categories as the subjects grow older but the interesting point for self-theory is the increased strength of the concept of "self-identity".

An earlier study that also illustrated the direction that self-concepts take with growing maturity was Phillips (1963) (7). He used third and sixth grade children from two schools in the same school system. The number in the sample was 192. To study their self perceptions he used a modified version of Amatora's Children's Personality Scale, which measured social characteristics and school achievement as perceived by the child. Phillips also obtained ratings for each child from his teacher and three of his peers. The accuracy of the child's self perception in each area was checked by comparison with those of his teacher and peers. In general it was found that the self-perceptions of older children were more accurate or realistic than those of younger children.

Methodological limitations of the previous two studies are apparent. For example, the self-concept technique in each case is doubtful since it appears only a face validity has been used in selecting the self-concept criteria. However, once again it is interesting to note the apparent direction of the change in the concepts of self as children grow older.

These changing self-concepts were also investigated by Long etal (1967) (8). This study applied a non-verbal measure of the self-

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(7). Phillips, B.N. (1963) "Age changes in accuracy of self perceptions" Child Development 34, 1041-1046.
(8). Long, B.H., Henderson, E.H. and Ziller, R.C. (1967) "Developmental changes in the self concept during middle childhood" Merrill - Palmer Quarterly. 13, 201-215.

concept to children between the ages of 6 and 12 years. All the children attended the same school, were mainly white, middleclass and slightly above average in I.Q. Random procedures were used to reduce the numbers to 26 boys and 26 girls in each of the six grades. The self concept measure involved the children in selecting and arranging symbols to represent himself in relationship to salient other people, and purported to measure the self-social constructs of individuation, esteem, power, identification and social dependency.

This study produced many varied findings, but in relationship to this section a meaningful pattern did emerge. Boys showed greater individuation, independence and alienation from adults than girls. For both sexes the change from first to second grade represented a significant discontinuity. The self-esteem score in the first grade was the highest in the study, while the mean score obtained by the second grade was the lowest. After the second grade the child tended to grow closer to others (with the exception of the teacher), higher in self-esteem and more individuated. In spite of the novel self-concept measure, this research did at least show the changing nature of the self during middle childhood.

An attempt was made by some researchers to study the effect of the ideal self with age. This notion was often used at one time to indicate the kind of self that a subject would like to attain. It is not given the great attention today that it once commanded, however it does have value when it is compared with the self and a measure of congruence is obtained between the two concepts.

The development of the ideal self-concept was investigated by Havighurst etal (1946) (9) whose subjects completed an essay on "The person I would like to be." A tentative age sequence was suggested in that as the child grew older his choice of person moved away from his immediate family. At 6-8 years the family tended to be

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(9). Havighurst, R.J., Robinson, M.Z. and Dorr, M. (1946) "The development of the ideal self in childhood and adolescence" J. Educ. Research. 40, 241-257.

chosen while between 8-16 years the person chosen tended to become more abstract, until a composite imaginary person was chosen. In a sequel to this study Havighurst and Macdonald (1955) (10) used similar techniques with New Zealand children. The same developmental trend was found with these children as that observed in the earlier study with American children.

The preceding studies though valuable in showing the growth of an ideal self away from a family model to an abstract one does not illustrate the concurrent development of the self-concept. This was attempted by Koocher (1974) (11) who formed groups based on Piaget's cognitive developmental levels using as subjects 75 children ranging in age from 6 to 15 years. The sample was of above average intelligence and essentially middle class. The Index of Adjustment and Values was used as the measure of self-rating, other and ideal-self rating.

No sex differences were found in any of the groups for any of the ratings. The children in the preoperational group did not tend to view others as significantly different to themselves. This lends empirical support to theorists who maintain that children at this stage of development do not perceive others as distinct entities. In both the concrete and formal-operational groups significant differences were found between self and other ratings in that children viewed others less positively than the self. This is really what would be expected from self-theory. The ideal-self was consistently higher in all groups and more importantly increased significantly as the subjects moved beyond the preoperational level. This answers the question raised after the last study. It is clear from Koocher's work that as children get older and move into more advanced levels of cognitive functioning their ideal-self concepts move away from their self-concepts.

Assessing the results of the research on self-development in middle childhood as reviewed here, and overlooking the shortcomings

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(10). Havighurst, R.J. and Macdonald, D.V. (1955) "Development of the ideal self in New Zealand and American Children." J. Educ. Research. 49, 263-273.

(11). Koocher, G.P. (1974) "Emerging selfhood and cognitive development." J. Genetic Psychol. 125, 79-88.

in their research structure, the following is presented as a tentative developmental pattern of the self. The influence of age and sex is varied with no uniform overall progression. In general though the sense of self tends to increase with age and becomes more realistic. Ideal self ratings tend to be higher than self-concept rating at all ages.

ADOLESCENCE AND THE SELF.

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My study is only concerned with primary school children's self-concepts and hence the period of adolescence is outside its compass. However, to round off the developmental aspect of the self, brief mention will be made of self-concept studies through adolescence. The number of articles will be limited to only four.

Amatora (1957) (12) indicated that self-evaluation on each of 22 personality ratings is possible and that developmental trends are revealed. Differences existed between the sexes and across the five age levels studied i.e. 9-13 years. Engel (1959) (13) in a longitudinal approach over two years found that the self-concept in adolescence was relatively stable, and she concluded that the crystallisation of the self-concept is achieved earlier than adolescence. Using a Q sort as a measure of self-esteem she found that the self-concept was independent of age, sex and intelligence.

Carlson (1965) (14) in a further longitudinal study over a 6 year period found, as Engel did, that self-esteem is a relatively stable dimension of the self and is independent of sex. Finally Long etal (1968) (15) in an extension of their 1967 study used students taken from grades 6 to 12. One of their many findings was that self-esteem

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(12). Amatora, Sister Mary. (1957) "Developmental trends in pre-adolescence and in early adolescence in self-evaluation" J. Genetic Psychol. 91, 89-97.

(13). Engel, M. (1959) "The stability of the self-concept in adolescence." J. Abnormal and Social Psychol. 58, 211-215.

(14). Carlson, R. (1965) "Stability and change in the adolescent's self-image." Child Development. 36, 659-666.

(15). Long, B.H., Ziller, R.C. and Henderson, E.H. (1968) "Developmental changes in the self concept during adolescence." School Review. 76, 210-230.

increased with age.

The development of an early sense of self in a child is interwoven not only with age and sex but with his family. The following sections will consider the various influences the family has in shaping the developing self-concept.

PARENTAL PERCEPTIONS AND CHILDREN'S SELF CONCEPTS.

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The parents' role in influencing a child's concept of self is of paramount importance. They certainly fulfil the notion of a "significant other". The importance of their views to the child is a major tenet of self-theory. However, this is not the only theory advanced for the development of the self within the family atmosphere. It is worth while to consider an alternative view and to try and determine the value of each.

Two popular, and to some extent competing, explanations of the development of the self-concept can be identified as the "reflection theory" and the "imitation theory". These are referred to as the "mirror" versus the "model" theory respectively. The mirror theory is an integral part of the symbolic interactionist tradition in which the self-concept is viewed as a product of the reflected appraisals of significant others. The model theory derives from social learning theory, especially from the work of Bandura. In this theory, the child acquires most of his behavioural characteristics and attitudes through the process of imitating various others. These two theories thus rely on two different processes to account for self-concept development.

Gecas etal (1974) (16) investigated the relative importance of these two processes and derived two hypotheses. Their hypothesis, derived from the mirror theory, is that the parental evaluation of

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(16). Gecas, V., Calonico, J.M. and Thomas, D.L. (1974) "The development of self concept in the child: mirror theory versus model theory"
J. Social Psychology. 92, 67-76.

the child is positively related to the child's self-concept. On the basis of the model theory the parental self-concept is suggested to be positively related to the child's self-concept.

A random sample of 300 "intact" families containing both parents and at least two children were used in the study. A semantic differential technique produced measures of self-concept of each family member, parents' perceptions of their children, and children's perceptions of their parents. After completion of the questionnaires 219 families were used for the analysis. Gecas etal found that the overall trend of the data indicated that a child's self-concept is more closely related to his parents' perceptions of him than it is to his parents' own self-conceptions. The mirror theory of reflected appraisals of significant others is thus favoured by this research.

Care must be exercised in evaluating these findings since the correlations were small i.e. mirror hypothesis - $0.5 < r < .41$ and model hypothesis - $.14 < r < .31$. Thus the results should be considered to be more suggestive than conclusive in terms of the relative importance of the two processes. It does indicate, nevertheless, the importance of the parents in their role of significant others.

Early correlational evidence of the relationship between parental evaluations of the child and the child's self-evaluations was provided by Helper (1958) (17). He used 74 children in the 8th and 9th grades of a secondary school and some 53 of their parents co-operated in providing the necessary ratings. On the whole, Helper found that the data did seem to point to the existence of a slight but real tendency towards similarity between parents' evaluations of their children and the children's self-evaluations. The major disadvantage of this study was the sample. Since over one-half of the fathers involved were employed in an academic capacity by a university, the families must be considered to be

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(17). Helper, M.M. (1958) "Parental evaluations of children and children's self-evaluations." J.Abnormal and Social Psychol. 56, 190-194.

primarily representative of a narrow portion of the socio-economic spectrum.

A somewhat similar study was attempted by Bledsoe and Wiggins (1973) (18). Similar criticisms also apply regarding their sample. The generality of the findings is somewhat limited by the relative homogeneity of the subjects. These comprised 100 children from the ninth grade and their parents, who were above average intelligence and mainly from a middle class background. Self-perceptions were measured on eight variables of "How I see myself" and / or "How I see my child."

In all eight variables, the parents' perceptions of their adolescents were more favourable than the adolescents' self-concepts, however only two of these differences were significant. The mothers and fathers agreed in their perceptions of their offspring. In essence then this study tends to agree with the two previous studies in that parental evaluation of their child's self-concept is similar to their child's actual self-concept. This underlines the idea that parents are significant others whose influence is related to their child's self-concept growth. It does not prove, of course, that the child's self-concept has been shaped by the parental evaluation. It only infers that as significant others the evaluations of parents can lead to children achieving self-concepts in accordance with these perceptions.

One discordant note is struck by the evidence of White and Human (1976) (19). They found that both parents and teachers of a group of 46 children, ranging in age from 3 to 5 years, did not recognise the self/social feelings of their children. The parents, as in the two previous studies, were mainly associated with a university and thus the findings although pertinent to the other studies can not be generalised. However, they found that the parents and teachers did agree with each other regarding the children's self/social

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(18). Bledsoe, J.C. and Wiggins, R.G. (1973) "Congruence of adolescents' self-concepts and parents' perceptions of adolescents' self-concepts" J. of Psychology. 83, 131-136.
(19). White, W.F. and Human, S. (1976) "Relationship of self concepts of three, four and five year old children with mother, father and teacher percepts." J. of Psychology. 92, 191-194.

constructs and thus they did share a common adult criteria of young children's self conceptions.

On the whole this section indicates a similarity between parental evaluations of their child's self concept and the child's self concept as revealed by the child, although some doubt remains regarding very young children. Perhaps children of this age, one could argue, have yet to internalise the reflected appraisals of significant others and thus there is no apparent similarity, as found by the latter study. What these studies do not show is whether the parents are merely good judges of their children's self concepts or whether the evaluations of the parents, internalised by the children, then results in a changed self concept similar to the evaluation. Self-theory would expect such influence, but these studies do not prove it.

SELF CONCEPTS AND FAMILY RELATIONSHIPS.

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This section will review the findings of studies that consider the quality of the relationship that exists inside the family. Since self-theory considers the parents to be significant others in the child's life then the parent's manner of child rearing, depth of feeling and their attitudes must be determining factors in the quality of the child's self-concept growth.

Instead of relying on parents' own reports or observers' ratings of parental attitudes Ausubel etal (1954) (20) used the child's perceptions of his parents' attitudes and related them to certain characteristics of ego structure. The children were white and came from intact families. Only a small sample of 40 was selected from the fourth and fifth grades of two elementary schools.

The perceptions of the children were measured with respect to

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(20). Ausubel, D.P. etal (1954) "Perceived parent attitudes as determinants of children's ego structure." Child Development. 25, 173-183.

their acception/rejection and intrinsic/extrinsic valuation by parents. It was proposed that although the parents' behaviour was objective, a more relevant determinant in effecting the child's self-concept was really how the child perceived his parents' behaviour.

The perceptions of acceptance and intrinsic valuation were highly correlated, and girls perceived themselves as significantly more accepted and intrinsically valued than did the boys. In addition children who perceived themselves as extrinsically valued by parents showed, among other effects, an unrealistic self-concept and less advanced levels of personality maturity.

Although the size of the sample precludes any generalisations Ausubel's study is important because it demonstrated that the child's view of his parents has implications for his self development. This is only one aspect of family life that impinges on self-concept growth. Research was investigating the areas of child rearing techniques and beliefs. One of the major studies investigating these factors was the research of Coopersmith (1967) (21).

He interviewed the mothers of the children involved in his study with respect to the types of discipline and control they had used with their children. He discovered that a boy's high self-esteem was associated with his mother's belief in the greater efficiency of reward rather than punishment (P.191); with the use of restraint, denial and isolation rather than either corporal punishment or the withdrawal of love (P.192); and with the use of discussion and reasoning, rather than autocratic means of control (P.214).

The family factors that lead to the child valuing himself are listed by Coopersmith as

1. parental worth: whereby the child senses the love and concern of his family
2. respectful treatment: whereby the child's views are considered

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(21). Coopersmith, S. (1967) The Antecedents of Self Esteem. W.H. Freeman Co; San Francisco.

as a member of the family

3. clearly defined limits: whereby the child comes to know, through his parents' demands and expectation of success that they care what happens to him.

In Coopersmith's study the warmth was measured concurrently with the children's self-esteem. In a study by Sears (1970) (22) the parental warmth was measured 7 years before the assessment of the children's self concept. He used 159 sixth grade children in a follow-up study of 5 year old kindergarten children. Seven years previously the mothers of these kindergarten children had been interviewed with regard to their patterns of child rearing. In his follow-up study no attempt was made by Sears to gain further information from the mothers, but the children now in the sixth grade completed self-concept scales devised by Sears.

The results obtained suggests that a child's self-concept at 12 years of age is significantly related to several aspects of the family constellation which had already existed when he was 5 years old. In particular, early parental warmth is associated with high self-concept in later childhood.

The findings of both Coopersmith and Sears are supplementary. They suggest that whether parental warmth is measured in the early life of the child or when he reaches the age of 12, there is a tendency for warm and accepting parents to have children with high self-concepts. Bias in the results of both studies could have been introduced because the effect of the father has not been measured directly. The information concerning the father was gained through the sons in Coopersmith's study and through the mothers in the study by Sears.

Nevertheless, the underlying idea that parental warmth towards the child is important is noted. This idea was supported in two

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(22). Sears, R.R. (1970) "Relation of early socialization experiences to self concepts and gender role in middle childhood." Child Development. 41, 267-289.

recent studies which showed that parental warmth is not restricted to intact families.

Berg and Kelly(1979) (23) divided 57 children in the age range 9-15 years into three equally sized groups. The groups were divided into divorced parents; intact families but one partner rejected; and intact and accepted parents. The children's self concepts were evaluated using the Piers-Harris Children's Self Concept Scale. It was found that children with divorced parents did not have self-concept levels any lower than those of intact-accepted families. However, children from intact-rejected families showed self-concept levels significantly lower than the other two groups.

In a somewhat similar study Raschke and Raschke (1979) (24) collected data from 289 third, sixth and eighth graders concerning self concepts, family structure and family conflict. Self concepts were assessed using the Piers-Harris scale and details of family structure and conflict were obtained from self-reports. No significant differences in self-concept scores of children from intact, single parent, reconstituted or other types of families were found. However, self concept scores were significantly lower for children who reported higher levels of family conflict.

These two studies indicate that the important factor in family life is the presence of love and warmth. In their absence and in conditions of conflict and rejection the growth of a child's self-concept can be hindered. One further factor needs to be considered and that is the effect of birth order on a child's self-concept.

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(23). Berg, B. and Kelly, R. (1979) "The measured self-esteem of children from broken, rejected and accepted families." J. of Divorce. 2, 363-369.

(24). Raschke, H.J. and Raschke, V.J. (1979) "Family conflict and children's self concepts: a comparison of intact and single parent families" J. of Marriage and the Family. 41, 367-374.

THE EFFECT OF BIRTH ORDER.

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In this particular area of family influence the effect of birth order on the self-concepts of children provides conflicting findings. Rosenberg (1965, P.107) (25) studying the self-esteem of adolescents states that there is little association between the child's birth order in the family and self-esteem. The important factor is whether the child has any brothers or sisters. The only child, he found, tends to have higher self-esteem than other children. However, Rosenberg's statistical analysis, on which he bases his findings, is very limited in that he only quotes the effects of birth order and self-esteem in terms of percentages.

Sex differences were also found by Rosenberg when the composition of the sibling structure was examined. For instance, in families of at least three children, if the majority of the children are boys, then the self-esteem of the boys is less than boys in families in which girls are in the majority. Girls differ from boys in that it appears to have little relation to their level of self-esteem whether they are surrounded by brothers or sisters.

The studies by Coopersmith (1967) and Sears (1970), which have already been reviewed concerning parental warmth, both concluded that birth order did effect the level of the child's self-concept. Sears found that small family size and early ordinal position resulted in high self-concepts for both sexes, while Coopersmith also suggested that birth order had a significant effect on self-esteem.

The extensive range of possible combinations of sex with size of family is almost certain to produce varying results as illustrated above. In addition to these variables some researches have considered the age spacing between siblings. For example, Kidwell (1982) (26) compared the self-esteem of middleborns with

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(25). Rosenberg, M. (1965) Society and the Adolescent Self-Image Princeton University Press: Princeton, New Jersey.
(26). Kidwell, J.S. (1982) "The neglected birth order: middleborns." J. Marriage and the Family. 44, 225-235.

that of first and last borns. She also considered the number, spacing and sex of the siblings of the middleborns. Data was obtained from a secondary analysis of a national sample of 2,200 boys from the tenth grade. Her results indicated that middleborn males have significantly lower self-esteem than first or last borns, and that their self-esteem is significantly lower when the average spacing of their immediate sibling is two years compared with one year. The effect of sisters is once again highlighted in that the self-esteem of the middle born is significantly enhanced when all his siblings are sisters.

Once again the differing results reviewed above illustrate the complicated nature of the effect of birth order. What has not been considered in the research literature is the effect of perceived sibling affection on self-concept. This returns to the quality of the relationship of the siblings being more influential than simply the size of it. Furthermore, the timing of the above studies are all different in that age is a variable. No longitudinal studies, to my knowledge, have been undertaken which have traced the development of a child over a changing pattern of sibling structure. The whole issue of birth order and its relationship with self-concept is unresolved.

SUMMARY.

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This chapter attempted to trace the development of the self-concept from the early years of a child's life into his adolescence. No simple pattern of growth emerged since the development of the self is dependent on a complex mixture of age, sex, significant others and perceived self appraisals.

The self-concept grows within a social context. Research has taken the increasing use of the first personal pronoun as evidence of a developing self. With increasing age, sex differences become apparent in the child's self-concept, his sense of identity grows

and his self-concept tends to become more realistic. Adolescence is a crucial period of growth for the self-concept.

The effect of the family on the developing self is crucial. The parents are the most "significant others" in the early years of a child's life and their views, comments and child rearing techniques all help to shape the child's emerging self-concept. The perceptions of children regarding their parents' attitudes influences their self-concept. It was interesting to note that the standard of perception by parents of their children's self-concept was good. The effect of birth order on self-concept is complicated and more research is needed concerning the sibling substructure inside the family. However, the most fundamental aspect of the influence of the family is the degree of warmth and love that exists within the family. This is the one most crucial factor in the development of a healthy self.

CHAPTER FIVE. THE SCHOOL AND THE SELF CONCEPT.

INTRODUCTION.

The school is a whole new way of life for the child on entry at age 4 or 5 years old. For more than a decade he will be exposed to school life. The child will gather impressions from significant others not only about his academic ability but about his social standing as well. This chapter will deal exclusively with those facets of school life that influence the child's developing self-concept. The effects of his peer group will be discussed in Chapter 6.

The effect of school life is not restricted to the personality, expectations and teaching style of the school's staff, but also includes the school itself and the organisation operative within the school. The ability of the child, his attitude to school, his valuation of his teacher will all help to determine the growth of his self concept during his attendance at school.

This chapter will review and contrast the findings of school based research pertinent to the child's development of self. It is not a simple task because of the complex nature of school life and the variety of experiences to which the child will be introduced. All school influences can be neither tested nor reviewed. Hence, the general trend of this chapter will be directed towards discussing the effects of the school's organisation, the teachers, ability groupings and school achievement.

TYPE OF SCHOOL AND SELF CONCEPT.

Schools are often termed to be traditional, open plan, experimental, private and public. Depending upon your own set of values each can be superior to the others. This section is concerned with whether research findings indicate any

differences between school types and their effects on children's self-concepts.

Most of the research in this area considers "open schools" and is American. According to Cockerham and Blevins (1976) (1) an open school is one that follows a flexible learning environment with large open work areas, in which the emphasis is upon pupil decision making and discovery forms of learning are encouraged in a non-graded organisation. This form of education, it has been suggested, would assist in the development of a positive attitude towards the self.

However, many studies have found no significant difference between the self-concept of students who attend open schools and those who attend the more traditional schools. Day and Brice (1977) (2) compared 100 six year old children from four classrooms varying in degree of "openness". They found no significant difference in the self-concept scores of the children in each class. Klaff and Doherty (1975) (3) compared children from a traditional school and two open schools using the Pictorial Self Concept Scale. Their sample of 185 children comprised kindergarten through second grade. No significant differences in self-concept scores for the children from the two types of school were found for most of the analyses. Similar results were reported by Klass and Hodge (1978) (4) who found no difference in self-concept scores for their 350 seventh graders who were distributed between open and traditional classrooms.

Further confirmation of the above findings are supplied by two unpublished dissertations. Rudawski (1974) (5) found, using a sample of 250 grade one through grade five pupils, that no significant differences were apparent in the self-concept scores

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(1). Cockerham, W.C. and Blevins, A.L. (1976) "Open school versus traditional school: self identification among native American and white adolescents." Sociology of Educ. 49, 164-169.
(2). Day, B. and Brice, R. (1977) "Academic achievement, self concept development, and behavior patterns of six year old children in open classrooms." Elementary School Journal. 78, 132-139.
(3). Klaff, F.R. and Doherty, E.M. (1975) "Children's self concepts and attitude toward school in open and traditional classrooms." J. of School Psychology 13, 97-103.
(4). Klass, W.H. and Hodge, S.E. (1978) "Self-esteem in open and traditional classrooms" J. Educ. Psychol. 70, 701-705.
(5). Rudawski, J. (1974) "The comparative effect of open space versus self contained classroom on pupil self concept development." Unpublished Doctoral Thesis. St. Louis University.

of the pupils, as measured by the Piers-Harris Children's Self Concept Scale, in an open space environment and those pupils in a self-contained classroom. Kohler(1973) (6) also reported no significant difference in any of the six areas of self-concept assessed by the Sear's Self Concept Inventory for some 316 children in open and traditional groups.

Some impact of school type on pupil's self concept, however, was discovered by Purkey etal(1970) (7) who compared a traditional school with an experimental school which in their opinion was innovative. The experimental school did not grade their pupils, encouraged them to set their own learning goals and made extensive use of team teaching. Testing grades 3 through 6 with the Coopersmith Self Esteem Inventory Purkey etal obtained mean self-esteem scores of 15.49 for the 414 pupils in the experimental school and 14.54 for the 523 pupils in the comparison school. I feel that although this differance is significant at the .001 level it is not very marked and that the findings in favour of the experimental school should be treated cautiously, especially since no account was taken of the length of time pupils had spent in the experimental school.

Overall, the effect of type of school on self concept appears to be non-significant. This is not at all surprising, in my view, since the main influence in a school is not the method of teaching but the kind of teacher. Schools, whether they are open or traditional, will have committed teachers. This being so,then there is not any reason to consider that their influence is lessened simply because of the school type. Differances are more likely to be present if a teacher is committed to a traditional approach, but finds himself in an open school or vice versa. Since this area of research into school type is not significant the next section will consider the effect of grouping procedures used within schools.

STREAMING AND CHILDREN'S SELF CONCEPTS.
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This area of self-concept research provides no simple answers. Although Acland (1973) (8) suggests that teachers who do not stream their pupils justify their

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(6).Kohler,P.T.(1973) "A comparison of open and traditional education; conditions that promote self concept." Unpub. Ph.D. Thesis. University of Connecticut.

(7). Purkey,W.M.,Graves,W. and Zellner,M. (1970) "Self perceptions of pupils in an experimental elementary school." Elementary School Journal 71, 166-171.

(8). Acland,H. (1973) "Streaming in English Primary Schools." Brit. J. Educ. Psychol. 43, 151-161.

action by claiming that non-streaming improves the self-concepts of their pupils this relationship is neither so clear nor simple.

That this relationship is indeed quite complex is shown by Barker Lunn (1970) (9). Her major study of 5,500 pupils in junior schools comprised 36 streamed schools and 36 unstreamed schools. Barker Lunn found that neither school organisation nor type of teacher effected the self-concept of children of above average intelligence, but did effect those children who were average or below average.

The major factor that did influence the average and below average children's academic self-concept was the beliefs of the teachers. For instance, average children who were taught by "non-streaming" teachers in an unstreamed school had more positive self-concepts than their counterparts in streamed schools. However, the poorest self-concepts in the average ability range were held by children who had teachers who believed in streaming, but were teaching in an unstreamed school.

Ferri (1971) (10) investigated the self-concepts of 815 children in non-streamed junior schools and 901 children in streamed junior schools who were subsequently transferred to various kinds of secondary school. Low ability pupils developed more favourable self-concepts in their secondary schools, while children who went to grammar schools developed poorer self-images. It thus appears that brighter children in the primary school on attending grammar schools were no longer top of their class and consequently this resulted in poorer self-concepts.

I agree with the suggestions by Nash (1976, P.60) (11) that the researches of Barker Lunn and Ferri demonstrate two significant relationships. Firstly, a teacher's belief about teaching seems to affect the self-concept of the pupils in her class. Secondly, they indicate how central to a pupil's self-concept is his class position. It is not his actual ability that seems to matter so

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(9). Barker Lunn, J.C. (1970) Streaming in the Primary School. Slough: N.F.E.R.

(10). Ferri, E. (1971) Streaming: Two Years After. Slough: N.F.E.R.

(11). Nash, R. (1976) Teacher Expectations and Pupil Learning. Routledge and Kegan Paul: London.

much as his ability as he compares it to others in his class.

This latter point is examined later in the empirical part of this present study. Two different kinds of ability groups are formed in that one grouping is based upon children's actual ability scores, as measured by the E.P.V.T. scale, and another grouping is formed of children who are grouped relative to the ability of the rest of their class. The strength of the relationship of each kind of grouping is investigated with regard to the self-concept scales devised by myself and is reported in Part 2, Chapter 16.

The self concepts of high and low achievers were examined by Dyson (1967) (12). He used a sample of 323 heterogeneously grouped and 244 homogeneously grouped seventh graders. High achievers reported significantly more positive academic self concepts than low achievers, but this was regardless of the grouping procedure used. However, different findings were reported by Weiner and Weiner (1972) (13) who investigated the effects of placement in ability groups using 215 seventh graders. They found that the placing of students in a particular ability group had no significant effect on how they reported their attitudes towards self and school.

These last two sections illustrate the importance of the teacher regarding their effect upon children's developing sense of self. Hence further consideration will be given to the "teacher" in the next three sections. Initially, the accuracy of the teacher's ratings of his pupils' self concept will be examined.

TEACHERS' RATINGS OF CHILDREN'S SELF CONCEPTS.

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Initial research in this area focused upon the relationship between teachers' perceptions of their pupils' self concepts and their pupils' actual or reported self-concepts. Perkins (1958a) (14) using fourth and sixth grade children investigated teachers' and peer groups' perceptions of children's self concepts. He found that teachers' perceptions of

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(12). Dyson, E. (1967) "A study of ability grouping and the self concept." J. Educ. Research. 60, 403-405.

(13). Weiner, B.J. and Weiner, E.A. (1972) "Ability grouping, attitudes towards school, and self concept of seventh grade students" Psychological Reports. 30, 12-14.

(14). Perkins, H.V. (1958a) "Teachers' and peers' perceptions of children's self concepts." Child Development. 29, 203-220

children's self-concepts are in general positively and significantly related to the children's expressed self-concepts. Furthermore, teachers who have completed three years of a child study course achieved significantly greater correspondence between their perceptions of children's self-concepts and their expressed self-concepts than do teachers who have never participated in a child study course.

Further support for this relationship between teachers' perceptions of, and children's reported, self-concepts is supplied by Davidson and Lang (1960) (15). Fifth and sixth grade children rated themselves on measures giving scores on teacher favourability and self-perception. The teachers rated their pupils on scales of academic achievement, behavioural and personality characteristics. The children assessed themselves in very much the same way as they considered their teacher assessed them. In addition, children who thought well of themselves were also regarded by their teachers as well behaved and of high ability.

This similarity of views between teacher and pupil is also found in more recent research. Chang (1976) (16) with children from the fourth, fifth and sixth grades found a significant relationship between the teacher's rating of the child's self-concept and the child's reported self-concept.

The importance of these studies appears to be threefold. Firstly, they suggest that the teacher could provide reliable information about a child's self perception. Secondly, this perception is enhanced by taking part in child study courses. Thirdly, and more importantly, it raises the question as to whether the child's self-concept is partly formed in response to the teacher's views. This latter idea of the relationship between teacher expectation and its effect on a child's developing self concept is examined in the next section.

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(15). Davidson, H.H. and Lang, G. (1960) "Children's perceptions of their teachers' feeling towards them related to self perception, school achievement and behaviour." J. Experimental Educ. 29, 107-118.

(16). Chang, T.S. (1976) "Self concepts, academic achievement, and teacher's rating." Psychology in the Schools. 13, 111-113.

TEACHER EXPECTATION AND CHILDREN'S SELF CONCEPT

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The idea that one person's expectation for another's behaviour could lead to a self-fulfilling prophecy was first experimentally tested in an educational setting by Rosenthal and Jacobson (1968) (17). They pretested all the children in a public elementary school and gave each of the 18 teachers of grades 1 to 6 a list of children ostensibly predicted from the test who would show dramatic intellectual growth. In actual fact these so called special children were randomly selected. Testing over the following two years showed that in general significant gains were achieved by the "special"children in relation to the control group. Rosenthal and Jacobson suggested that teacher expectation of their pupils' performance could serve as a self-fulfilling prophecy. However, their study has methodological deficiences and has been severely criticised. For instance, it is very difficult to accept that the teachers really did alter their attitudes and expectations especially since they appeared to have paid very little attention to the list of children given to them. Nevertheless, at the very least the value of their research lies in the proliferation of further studies that it engendered.

Palardy(1969) (18) investigated whether teacher's reported beliefs about first grade boys' probable success in reading had any significant effect on the boys' eventual measured achievement in reading. The teachers were asked to assume that first grade girls would have a 80% success rate in learning to read. On this basis they had to predict what rate of success the boys would have. Palardy found that when teachers reported that boys are far less successful than girls in learning to read, then the boys were in actual fact far less successful. However, when the teachers reported that boys were as successful as girls in learning to read, then the boys were actually found to be equally successful.

The underlying implications of the above two studies,if applicable to self theory, could lead to dramatic results.They highlight the effect of the teacher's interaction in the classroom. The questions he asks, the manner in which he asks them, and his response to answers will all influence his pupils. The manner of questioning was observed by Good (1970) (19) in four first grade classes. He found

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(17). Rosenthal,R. and Jacobson,L. (1968) Pygmalion in the Classroom New York: Holt, Rinehart &Winston.

(18). Palardy,J.M. (1969) "What teachers believe, what children achieve." Elementary School Journal. 69, 370-374.

(19). Good,T.L. (1970) "Which pupils do teachers call on?" Elem. School Journal 70, 190-198.

that these teachers gave low achievers significantly less opportunity for classroom response than high achievers. Thus, high achievers were called upon with greater frequency, which no doubt helped to reinforce the views that the children held of themselves. The effect of the teacher could be beneficial if he knew how to respond to pupils so as to enhance their self-concepts.

One study that deals with expectations was attempted by Palfrey (1973) (20). He investigated the expectations of the head of a school and conducted a survey in which he suggests that the headteachers, through continuous communication with the pupils and staff, not only serves to enhance or diminish the child's evaluation of himself but will also impart to the pupils in their charge a self-image which reflects the headteachers' highly subjective evaluation of the pupils as a pupil and as a person. These findings, however, must be treated with caution because of the elementary statistics used and the relatively small number of children and headteachers in the sample. The results could be used, however, as a pointer for further research.

This section has considered the rationale for teachers to be the prime movers in enhancing a child's self-concept. The crucial question is what effect have they had as shown in past research? Can teachers be taught in a way that will improve children's self concepts? These questions will be considered in the next section.

SELF CONCEPT ENHANCEMENT.

The effects of teachers upon the development of self concepts in children was given prominence by Staines (1958) (21). He considered the self to be a learnt structure growing mainly from comments made by other people and from inferences drawn by children out of their experience in home, school and other social groups. Staines found that marked differences occurred between teachers in their frequency of use of self-reference in their comments, particularly in their positive and negative comments on a child's performance, status and self confidence. He also found that it was

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(20). Palfrey,C.F. (1973) "Headteachers' expectations and their pupils' self-concepts." Educ. Research. 15, 123-127.
(21). Staines,J.W. (1958) "The self picture as a factor in the classroom." Brit. J. Educ. Psychol. 28, 97- 111.

possible to teach so that, while aiming at the normal results of teaching, specific changes could be made in the child's self-picture. Furthermore, changes in a child's self-picture were inevitable in every classroom whether the teacher was aware of them or attempted to control them.

Negative findings were recorded in the following two studies that attempted to control the changes in a child's self concept. Chadwick (1966) (22) repeated Staines' experiment but used secondary pupils instead of junior school children. She found that, although the teachers could incorporate into their role the behaviour appropriate for the healthy development of their pupils' self-concepts, there was little change in the self-concepts of their pupils. Chadwick explained this adverse result by considering that other influences could be acting against the teachers' attempts at self-concept enhancement such as streaming, adolescent characteristics and an insufficient time period for the experiment.

Workshops are described by Hogan and Green (1971) (23) in which teachers are helped to realise that their own behaviour greatly influences student's self-concepts. During the workshop sessions the teachers are taught specific verbal and non-verbal responses as well as other classroom practices designed to enhance their students' self concepts. Their investigation into the effects of these workshops upon children's self-concepts in fourth, fifth and sixth grade students, however, reported negative evidence. The authors believe that the limitations of their study had a major influence on the findings. The teachers, for instance, received little follow up instruction or assistance as the school year progressed and this coupled with the wide range of student achievement and large class size served to mitigate the effectiveness of the postulated behavioural changes.

A reason for failure, in both the studies by Chadwick and by Hogan and Green, has been overlooked. It must not be assumed that

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(22). Chadwick, J.A. (1966) "Some effects of increasing the teachers' knowledge of their pupils' self-pictures." Unpublished M. Ed. Thesis. Manchester University.
(23). Hogan, E.O. and Green, R.L. (1971) "Can teachers modify children's self-concepts" Teachers College Record. 72, 422-426.

simply imparting the knowledge relevant to the improvement of pupils' self concepts will automatically enable the teacher to internalize it into his own teaching behaviour. It is my opinion that certain teachers would be far more effective in enhancing pupils self concepts due to their personality.

This last point is made in a different way by Purkey (1970, P.46) (24) who considers that each teacher needs to view himself with respect, liking and acceptance. When teachers have essentially favourable attitudes towards themselves, they are then in a much better position to build positive and realistic self-concepts in their students.

In contrast to the last two studies other researchers that have investigated pupil self-concept enhancement have produced more positive results. Landry etal (1974) (25) studied the effects of a preschool self-concept enhancement programme on a group of 4 year olds. The programme was organised into 33 sessions covering an eleven week period. The authors found significant differences in self-concept gains between the experimental and control group and concluded that the programme had salient effects on increasing self concepts in 4 year old children.

Hauserman etal (1976) (26) used 30 children from grades kindergarten to fourth grade. All pupils selected had scored low in self-concept measures; not only on the Bolea Pictorial Q Sort, but also according to teacher judgement which was rated independently of the Q sort results. The enhancement procedure consisted of the prompting, by a teacher, of a positive self statement from the child following a successful classroom experience. This statement was immediately followed by a positive social reinforcer eg hug, wink, pat on the back, "I'm proud of you", etc. At the end of the 40 day treatment period every child receiving the treatment showed a large gain in self-concept score, but no significant change was shown by the control group. The gains were maintained on a delayed post test given one month after the end of the prompting procedures.

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(24). Purkey, W.W. (1970) Self Concept and School Achievement. Prentice Hall Inc: Engelwood Cliffs: New Jersey.
(25). Landry, R.G., Schilson, E. and Pardew, E.W. (1974) "Self-concept enhancement in a preschool program" J. of Experimental Education. 42, 39-43.
(26). Hauserman, N., Miller, J.S. and Bond, F.T. (1976) "A behavioural approach to changing self-concepts in elementary school children" Psychological Record 26, 111-116.

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Using a sample of children from grades one through 6, from schools with predominately black populations, Felker etal (1973) (27) studied the effect of a teacher programme in self-concept enhancement on the children's self-concept. In general, they found that the self concept enhancement programme was responsible for moderate changes in the expected direction and that the children made important gains in self-concept.

Further evidence supporting the enhancement of pupils' self concepts by teachers is supplied by Williams (1976) (28). In this study, teachers implemented classroom activities for enhancing school self-concept. Significant increases in school self-concept were found for fourth graders and improved feelings about school were noticed for the second and third graders in the sample.

Research so far has indicated that teachers can be taught to teach in such a way that a child's self concept will be enhanced. What needs to be examined is whether this increase in self concept will produce an increase in related behaviour patterns, and what effect enhancement in one area of the self-concept will have on the general self concept. A further point to be considered is whether self-concept will be enhanced by achievement gains.

The following two researches supplement each other and attempt to answer some of the questions raised above. Lane and Muller (1977) (29) examined the impact of operant reinforcement of positive self-descriptive behaviour on the self concepts and classroom behaviour of 60 fifth graders. These children had scored at, or below, the group median on both the intellectual-self domain and total self concept score on the Primary Self Concept Inventory. Three groups of 20 were formed, in which one group received written reinforcement for positive self descriptions of school performance, one for general statements and the third received no reinforcement.

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(27). Felker, D.W., Stanwyck, D.J. and Kay, R.S. (1973) "The effects of a teacher program in self-concept enhancement on pupil's self-concept, anxiety, and intellectual achievement responsibility." J. Educ. Research 66, 443-445.

(28). Williams, F.E. (1976) "Re discovering the fourth grade slump in a study of children's self concepts" J. Creative Behavior. 10, 15-28.

(29). Lane, J. and Muller, D. (1977) "The effect of altering self-descriptive behavior on self concept and classroom behavior. J. of Psychol. 97, 115-125.

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This research indicated that children can quite easily be helped to describe themselves more positively, which reflects itself in higher self concepts. This enhancement of measured self concept was factor specific and did not significantly change other areas of the measured self concept. In addition, however, these changes did not provide support for the widely held notion that changing self concept will result in behavioural changes. In my view, the behavioural responses monitored by Lane and Muller were not only too many i.e. 9, but also too diverse in nature. For instance, "full day attendance at school", "handing homework in on time", "use of library" etc. seem a little nebulous as behavioural responses. Significant changes involving this type of behaviour cannot be reasonably expected from a self enhancement programme of two assignments per week for a four week period.

The study by Backer etal (1977) (30) compared gains in achievement and self-concept of 23 first graders who received individualized, supportive, and success-emphasizing instruction with those of 22 pupils who received more traditional instruction. No direct teaching of self concept occurred. While this study suffers from a number of methodological limitations, its findings suggest that individualized instruction in reading readiness can enhance performance on a test of reading readiness but does not affect self concept.

These two studies taken together suggest that self concept may be more easily changed through direct, systematic instruction, rather than global approaches which seek to provide a warm supportive classroom atmosphere. Zirkel (1972) (31) would support this suggestion, since he found that the use of significant others eg parents and teachers, to be more important in enhancing children's self concepts than the use of the school curriculum, counselling services or specialised programmes.

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(30). Backer, J.C., Wooden, S. and Muller, D. (1977) "Individualized, success oriented instructions in achievement and self concept of first graders." Perceptual and Motor Skills 45, 721-722.
(31). Zirkel, P.A. (1972) "Enhancing the self concept of disadvantage students" California J. of Educ. Research. 23, 125-137.

This section has illustrated clearly that the self concepts of children can be enhanced. What has not been discussed, although it was briefly mentioned, is the personality of the teacher and the effect of his teaching style. The effects of these will be reviewed in the next section.

CHILDREN'S SELF CONCEPT AND TEACHING STYLE.

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Burns (1976) (32) investigated the effect of teachers' attitudes to self and others with respect to preferred teaching approaches on a continuum from traditional to progressive. He found that teachers with low self-concepts favour a more traditional approach, with its evaluation and competition, while those with higher self-concepts prefer a personalized, unstructed teaching approach. In expanding this point, Burns (1977, P.290) (33) argues that since the possession of such low self-concepts engenders a relative restriction in establishing warm personal relationships, then it is likely that many pupils under the aegis of such teachers would be more liable to develop less positive self attitudes. This would be due to an atmosphere of competition, impersonality and inflexibility of teaching style with its consequent effects on performance. To this, I would add the possible catastrophic effect this atmosphere could have on children of low ability.

The above findings are supported by the study of Cheong and Wadden (1978) (34). They examined the effect on 500 fourth, fifth and sixth grade pupils' self-concepts when taught by two significantly different groups of teachers. The teachers were selected from a pool of 168 teachers who had completed tests on personal beliefs, teaching practices and dogmatism. One group of 11 teachers were labelled as the most experimental or least dogmatic,

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(32). Burns, R.B. (1976) "Self and teaching approaches" Durham Res. Review. 36, 1079-1085.

(33). Burns, R.B. (1977) "The self concept and its relevance to academic achievement" In: Child, D (Ed.) Reading in Psychology for the Teacher. Holt, Rinehart and Winston, London.

(34). Cheong, G.S. and Wadden, E.P. (1978) "The relationship between teachers' experimental and dogmatic attitudes, and their pupils' self-concept." Alberta Journal of Educ. Research. 24, 121-125.

while the other group of 11 teachers were classified as the least experimental or most dogmatic. It was found that pupils who were taught by the most experimental group of teachers had significantly higher self-concepts than the pupils who were taught by the least experimental group of teachers.

Different characteristics of teaching style were examined by Trowbridge (1973) (35) who found that teachers with low self-concepts tended to talk more and not allow their pupils to talk as much as pupils taught by teachers with higher self-concepts. The group of teachers with high self-concepts tended to use divergent and evaluative thought more than teachers with lower self-concepts. The latter were more likely to use memory and convergent thinking with their class.

The effect of the teachers, and the organisation of the school, on children's self-concepts have been considered so far in this chapter. Considerable research has been undertaken in the field of school achievement with relation to children's self-concepts. The research concerning this relationship will be discussed in the following pages. Later in Part 2 of this present study, certain aspects of ability and children's self-concept will be investigated. In an attempt to give some order to the mass of studies on this topic, the research findings have been grouped into the following categories: causal studies, ability grouping, academic achievement and the effect of these relationships with factor specific and global self-concept measures.

SELF CONCEPT AND ACHIEVEMENT: CAUSAL STUDIES.

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A pioneer in the area of relating self-consistency to school performance was Lecky (1945) (36). After observing the spelling mistakes of children he considered

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(35). Trowbridge, N. (1973) "Teacher self-concept and teaching style" In: Towards a Science of Teaching. By Chanan.G. (Ed.) Slough. N.F.E.R.

(36). Lecky, P. (1945) Self-Consistency: A Theory of Personality New York: Island Press.

that they were spelling more in terms of how they thought they could spell, rather than in terms of their actual spelling ability. Lecky was one of the first to consider that low ability in academic subjects may be related to a student's conception of himself as being unfit to learn academic material.

Many correlational studies have been made on the relationship of self-concept with school achievement, but few have been concerned with the causative aspect of the relationship. If the self-concept is antecedent to the academic achievement then this has important repercussions for school personnel; especially so, since the last section indicated that children's self-concepts are so amenable to teacher influence.

One exploratory study conducted by Wattenberg and Clifford (1964) (37) attempted to answer the question as to which is the antecedent factor, the self-concept or the achievement. Mental ability and self-concept for a sample of children in their first semester of kindergarten in two elementary schools were measured. The two dimensions of the self-concept measured were "competence" and "personal worth". Two and a half years later, measures were obtained for self-concept and for the children's progress in reading.

The two authors found that the measures of self-concept taken at the kindergarten were predictive of reading achievement some two and a half years later. The association between the self-concept measure and the intelligence test was low. Thus one could say that the use of the self-concept measure in kindergarten could add significantly to the predictive efficiency of the mental ability tests normally employed. They concluded, at least, that even as early as kindergarten, self-concept phenomena are antecedent to, and predictive of, reading achievement.

Ability and achievement tests together with self-concept scales were administered to a sample of 225 sixth graders by Stenner and

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(37). Wattenberg, W.W. and Clifford, C. (1964) "Relation of self-concepts to beginning achievement in reading." Child Development. 35, 461-467.

Katzenmeyer (1976) (38). Their results were similar to those of Wattenberg and Clifford in that they found that self-concept, as measured by their scales, was shown to add significantly to the prediction equation for achievement over and above the contribution of non-verbal intelligence. They suggest that assessments of self-concepts are not merely a reflection of the pupils more or less objective appraisal of his own scholastic standing and aptitudes, but rather represents a new domain of useful information in explaining achievement differences.

Doubts concerning these findings are raised by Scheirer and Kraut (1979) (39) in their review article on the attempts to link self-concept change with a consequent change in educational achievement. They found relatively few published studies dealing with this relationship, when compared to the 18 unpublished doctoral dissertations summarised in "Dissertation Abstracts". Although not entirely satisfactory, these summaries give a valid review of their findings, and if taken as a whole, will at least give some indication of the direction of the relationship between self-concept and educational change. Scheirer and Kraut believe that the overwhelming negative evidence they reviewed for a causal relationship should create caution among both educators and theorists, especially those who have assumed that enhancing a person's feelings about himself would lead to higher academic achievement.

ACADEMIC ACHIEVEMENT AND SELF-CONCEPT.

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The evidence of causal studies for the relationship of self-concept and achievement is limited since the majority of research in this field is correlational in nature. These correlational studies are in a way the link between causal studies and self-concept enhancement programmes. Correlational studies do not provide evidence that self-concept influences

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(38). Stenner, A.J. and Katzenmeyer, W.G. (1976) "Self-concept, ability and achievement in a sample of sixth grade students" J. Educ. Research. 69, 270-273.

(39). Scheirer, M.A. and Kraut, R.E. (1979) "Increasing educational achievement via self-concept change." Review of Educational Research. 49, 131-150.

academic achievement, but they have encouraged educators to believe that special attempts to enhance pupils' self-concepts might increase their educational progress.

A cross section of this literature will be reviewed below. It will begin with those studies that have used reading as a measure of academic achievement, progress to studies using other measures of achievement, and finish with a review of the work of Brookover and his associates. The latter researchers have produced, perhaps, the most impressive of these correlational studies.

The study by Lamy (1965) (40) investigated the relationship between children's perceptions of themselves in kindergarten and their subsequent achievement in reading in the first grade. She discovered that children's self-concepts were significantly related to reading achievement and concluded that they were also likely causal factors of such achievement - a conclusion based unfortunately on her interpretation of the data and not on the design of the study.

In an attempt to ascertain the relationship between a child's self-concept and his achievement Ozehosky and Clarke (1971) (41) tested 1042 children in 37 kindergarten classes in New York. From this initial sample, two criterion groups were set up based upon teachers ratings of the children's self-concept. These two groups consisted of the 50 highest rated children with regard to self-concept, and the 50 lowest rated. The children were equally distributed according to sex.

These groups were then given two individually administered self-concept measures, only one of which confirmed the teachers' ratings of the extreme self-concept groups. This instrument was devised by the authors and was a non-verbal pictorial measure called the "U-Scale". The groups were also given the Metropolitian Readiness Tests as a measure of achievement. Although advising

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(40). Lamy, M.W. (1965) "Relationships of self perception of early primary children to achievement in reading." In: Gordon, I.J. (Ed.) Human Development: Readings in Research. Glenview, Illinois: Scott Foresman.

(41). Ozehosky, R.J. and Clarke, E.T. (197) "Children's self-concept and kindergarten achievement" J. of Psychology. 75, 185-192.

caution in the interpretation of the results, due to the extreme dichotomy of the groups, the authors nevertheless report that at the kindergarten level self-concept as measured was related to achievement.

In contrast to these positive findings, Williams (1973) (42) reported that she found no significant correlations between the self-concepts of 133 children in the first grade and their first or second grade reading achievement. The self-concept measure was a modified version of the Coopersmith Self Esteem Inventory. The negative result could perhaps be explained in that in this modified version of the scale only three of the twenty six items referred to school directly. Thus the scale measured a general self-concept and not one specifically related to an academic or school self.

Although other studies did not use reading as their achievement measure, the pattern is similar to that above. Piers and Harris (1964) (43) used part of their total sample to examine the relationship of self-concept with I.Q. and achievement. In general, they found that the correlation between self-concept scores and I.Q. and achievement was considerably greater at sixth grade level than at third grade level. The significant relationship of r= .32 reported by Piers and Harris for the sixth grade children is comparable to that of r= .36 between self esteem and achievement as found by Coopersmith (1959) (44) with fifth and sixth graders.

In a study that investigated self-concepts, level of aspiration and academic achievement in segregated schools Caplin (1968) (45) used a sample of 180 lower socio-economic children from the fourth, fifth and sixth grades. He found that children having more positive

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(42). Williams, J.H. (1973) "The relationship of self-concept and reading achievement in first grade children" J. Educ. Research. 66, 378-380.

(43). Piers, E.V. and Harris, D.B. (1964) "Age and other correlates of self-concept in children." J. Educ. Psychol. 55, 91-95.

(44). Coopersmith, S.A. (1959) "A method of determining types of self-esteem." J. Abnormal and Soc. Psychol. 59, 87-94.

(45). Caplin, M.D. (1968) "Self concept, level of aspiration, and academic achievement." J. of Negro Education. 37, 435-439.

self-concepts had higher academic achievement. The correlation between the self-concept measure and the achievement score was $r = .52$ with $p < .001$.

Bledsoe (1967) (46) also discovered a low to moderately positive relationship for self-concept and achievement. In addition, a sex difference was apparent in that the relationship was only significant for boys, and was not significant for the girls in either the fourth or sixth grades.

An example of contrasting findings to those above would be the study by Chang (1976) (47). In her sample of 198 fourth, fifth and sixth graders no significant relationship was found between self-concept, as measured by the Piers and Harris scale, and achievement scores in reading and mathematics.

The much quoted research of Brookover and his associates (1962, 1964, 1965, 1967) deals with an age range outside the scope of the present study. However, because of its importance it will be briefly reviewed here. Brookover etal reported a number of related studies in a longitudinal programme involving 12 to 18 year olds. They made use of a specific academic self-concept measure rather than a global one and found that (1964) (48) there is a significant correlation between self-concept and academic performance, even when I.Q. is controlled. Furthermore, in some subjects specific self-concepts of ability is a significantly better predictor of specific subject achievement than is a global self-concept measure.

Brookover also found (1967) (49) that self-concept of ability and school achievement were significantly correlated at all grade levels in the sample. The correlations ranged from 0.48 to 0.63

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(46). Bledsoe, J.C. (1967) "Self concepts of children and their intelligence, achievement, interests and anxiety" Childhood Education. 43, 436-438.

(47). Chang, T.S. (1976) "Self concepts, academic achievement, and teacher's rating." Psychology in the Schools 13, 111-113.

(48). Brookover, W.B., Thomas, S., and Patterson, A. (1964) "Self concept of ability and school achievement" Sociol. of Education. 37, 271-279.

(49). Brookover, W.B., Erickson, E.L. and Joiner, L.M. (1967) "Self concept of ability and school achievement: relationship of self-concept to achievement in high school" Co-operative Research Project No. 2831, East Lansing, Michigan State University.

over the six years.

An important idea to arise from the work of Brookover is that of self-concept of ability being a threshold variable, which intervenes between social class and school performance. Low socio-economic status cannot by itself explain low academic achievement, since not all pupils of low social class do poorly at school. Conversely, not all middle and upper class children perform well in school. Thus, Brookover suggests that below a certain ability level, children irrespective of their social class or self-concept will not do well. Although if the self-concept is low, then not even very able middle class children will do well.

The studies reviewed in this section indicate that in general a low positive relationship exists between self-concept and achievement. It is interesting to note that some studies of senior pupils have used self-concept of ability and self-prediction as a measure of scholastic achievement. These studies eg Keefer (1969) (50), Jones and Strowig (1968) (51), and Jones and Grieneeks (1970) (52) point to the use of self-concept of ability as being just as good a predictor of achievement for college students as the pre-college assessments normally used i.e. standardised tests and grade point averages.

The debate concerning self-concept and achievement, the effects of enhancement of the self-concept and causal effects will continue. So many variables need to be controlled to explore the above ideas that no group of studies have been undertaken that have provided definitive answers. It may be profitable at this point to consider the role of self-concept in ability groupings.

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(50). Keefer, K.E. (1969) "Self-prediction of academic achievement by college students." J. Educ. Research. 63, 53-56.
(51). Jones, J.G. and Strowig, R.W. (1968) "Adolescent identity and self perception as predictors of scholastic achievement" J. Educ. Research. 62, 78-81.
(52). Jones, J.G. and Grieneeks, L. (1970) "Measures of self-perception as predictors of scholastic achievement" J. Educ. Research. 63, 201-203.

ABILITY GROUPING AND SELF-CONCEPT.

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Many studies have examined the self-concepts of children and ability grouping. To be more specific, these ability groups do not usually exist in practice. Groups of high and low ability children are identified from the school population and their self-concepts studied. The difference is important because two concepts are involved i.e. existing ability groups due to streaming or setting is not the same as children being assigned to an ability group for the purposes of a statistical analysis. Overall, the trend suggested by these studies is for children in the highest ability groups to have the highest self-concepts, although there are exceptions as one usually finds in self-concept research!

A comparative analysis was made of the self-concept scores obtained from a sample of 510 fourth through sixth graders by Anastasiow (1972) (53). A variety of ability measures were administered and the top 26% and the bottom 26% of the children were assigned into high and low ability groups respectively. The results indicated that children who have low ability scores also have significantly more negative ways of rating themselves. A sex difference was also apparent in that low ability girls were found to have a much more negative view of themselves than low ability boys.

Bruininks (1978) (54) in a very small sample of 23 learning disabled children found that their self-concepts were much lower than those of non-disabled children. In an earlier study Dyson (1967) (55) also found that high achievers reported significantly higher self-concepts than low achieving pupils.

In a recent study of gifted children, Karnes and Wherry (1981) (56) compared the self-concepts of the 90 gifted children with a

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(53). Anastasiow, N.J. (1972) "Sex differences in self-concept scores of high and low ability elementary students" The Gifted Child Quarterly 11, 112-116.

(54). Bruininks, V.L. (1978) "Peer status and personality characteristics of learning disabled and non disabled students" J. of Learning Disabilities. 11, 484-489.

(55). Dyson, E. (1967) "A study of ability grouping and the self-concept." J. Educ. Research. 60, 403-405.

(56). Karnes, F.A. and Wherry, J.N. (1981) "Self-concepts of gifted students as measured by the Piers Harris Children's Self-Concept Scale" Psychological Reports. 49, 903-906.

group of 58 non-gifted children. They found that the former group had significantly higher self-concepts as measured by the Piers Harris Children's Self Concept Scale.

So far research has suggested that there is a difference between the self-concepts of children who are high in academic ability and those who are low in academic ability. However, further work has concentrated on those children who are academically bright but do not achieve their potential in academic attainment.

An initial study by Walsh (1956) (57) used elementary school boys, who were academically bright, and split them into overachievers and underachievers. She found that the underachievers had more negative feelings about themselves than did the high achievers. These findings were supported by Kanoy etal (1980) (58) who found in a small sample of bright children, I.Q. $\geq$ 116, that achievers had significantly higher self-concept scores than unachievers, as measured by the "intellectual" and "school status" subscales of the Piers and Harris Children's Self Concept Scale.

Different results were reported by Trowbridge (1974) (59). When she investigated the relationship between self-concept and I.Q. in an elementary school, she found that children on both the high end and the low end of the I.Q. continuum had lower scores on Coopersmith's S.E.I. than those children in the middle range.

Not withstanding the latter study, results tend to agree that academically bright children have higher self-concepts than less ability children. Furthermore, it appears that underachieving bright children also have lower self-concepts than their overachieving counterparts. A search of the literature by myself has not produced any studies that deal with the effect on self-concept of relative ability groupings. These relative ability groups consist of children who are judged academically in relation to the

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(57). Walsh, A.M. (1956) Self Concepts of Bright Boys with Learning Difficulties. New York: Teachers College, Columbia Univer.

(58). Kanoy, R.C., Johnson, B.W. and Kanoy, K.W. (1980) "Locus of control and self concept in achieving and under achieving bright elementary students" Psychology in the Schools. 17, 395-399.

(59). Trowbridge, N. (1974) "Self concept and I.Q. in elementary school children" California J. of Educ. Research. 25, 37-49.

ability of their classmates and not according to an objective measure. The effect of this type of grouping is considered in Part 2 of this study, and it forms part of my empirical work i.e. Chapter 16.

GLOBAL AND SPECIFIC MEASURES OF SELF-CONCEPT.
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Returning to the relationship of self-concept to achievement in school, one more observation needs to be made before concluding this chapter. A major reason for only moderate correlations being obtained for this relationship lies, perhaps, in the frequent use of global self-concept scales rather than factor specific self-concept scales. This idea will be examined below, but because it is central to the orientation of this present study it will be discussed in greater detail in Part 2, i.e. Chapters 15 and 16.

It is interesting to note that Brookover's higher correlations ranging from 0.48 to 0.63 were obtained with a specific self-concept measure of ability. In another study already reviewed, Caplin (1968) (60) also noted that the self-concept scale he used related directly to two specific measures i.e. the pupil's feelings about himself as a person and/or social being; and secondly, to his feelings about school. Caplin reports that by separating out those items relating to school self-concept, an analysis of the results showed that these items carried the weight of the significant relationship which he found between self-concept and achievement.

Mintz (1975) (61) and Mintz and Muller (1977) (62) examined the correlation between academic achievement and factor specific, as well as global, measures of the self-concept for 314 fourth and sixth grade children divided into grade level groups, with and without Spanish surnames. The Primary Self Concept Inventory was used

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(60). Caplin, M.D. (1968) "Self concept, level of aspiration, and academic achievement." J. of Negro Education. 37, 435-439.
(61). Mintz, R.L. (1975) "The relationship between specific and global measures of self-concept and academic achievement in fourth and sixth grade students" Unpublished Doctoral Thesis. New Mexico State Univer. Las Cruces: New Mexico.
(62). Mintz, R. and Muller, D. (1977) "Academic achievement as a function of specific and global measures of self-concept." J. of Psychology. 97, 53-57.

to measure self-concept on six scales: physical size, emotional state, peer acceptance, helpfulness, success and student self. A global score was derived by totalling the scores on the six scales. The two specific measures of the self-concept that were most reflective of school performance, as measured by the Comprehensive Tests Basic Skills, were the "success" and "student self scores". These showed low positive correlations with achievement, but the remaining specific measures and the global score showed no relationship with achievement.

Although the results of Mintz and Muller suggest that an area specific model of the self-concept is more useful than a global or undifferentiated model, they consider that perhaps the most startling result of the study is the universally low correlations between self-concept and achievement. They conclude that even if self-concept does influence achievement, it does not have a profound effect. Nevertheless, as Burns (1979, P.280) (63) comments, the array of correlations which tend to hover in the region of r=0.30 and r=0.40 does explain upto around 16% of the variance in academic performance in terms of the self-concept. It is thus too important to be discarded, and should rank alongside the other more usual explanations of I.Q., social class, parental interest etc.

A further study by Muller etal (1977) (64) repeated the above research, to check if the correlations between self-concept and achievement were spuriously low, due to the lack of a specific academic success self-concept measure and the use of a global measure of achievement. An experimental version of the previous self-concept scale was used which measured physical maturity, peer relations, academic success and school adaptiveness. Achievement was measured with specific scores in reading, language, maths and then a total score was obtained by using the previous measure of achievement.

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(63). Burns, R.B. (1979) The Self Concept: Theory, Development, Measurement and Behaviour. Longmans, London.
(64). Muller, D., Chambliss, J. and Wood, M. (1977) "Relationships between area specific measures of self-concept, self esteem and academic achievement for junior high school students" Perceptual and Motor Skills. 45, 1117-1118.

For their sample of 26 boys and 48 girls Muller etal found that academic success self-concept significantly correlated with each of the achievement measures and their correlations were slightly higher than those reported by Mintz and Muller (1977). They concluded that their results supports previous findings of a small relationship between self-concept and school achievement and that this relationship is factor specific.

SUMMARY.

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This chapter has examined the effect of school life on the self-concept of its pupils. It is an extensive topic in that it embraces many diverse relationships. It considers the notion that even the physical construction of the school building (Getzels 1974) (65) can shape self-concepts while giving consideration to the implication that the influence of the self-concept on achievement is too small to be important.

Underlying the research into self-concepts is the belief of many educators that it is too important to ignore. Correlational studies abound but, as yet, little proof is evident in terms of causal studies as to the exact nature of its importance. The research reviewed in this chapter is suggestive of several results as indicated below.

Overall, the effects of the type of school on self-concept appears not to be significant. The effects of streaming on children's self-concepts are complex, although the beliefs of teachers regarding streaming appear to have significance for children of average and below average ability.

Teachers can not only provide reliable information about a child's self-concept, but their expectations can influence them. However, there is not sufficient evidence to determine whether these enhanced self-concepts lead to lasting behavioural responses.

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(65). Getzels, J.W. (1974) "Images of the classroom and visions of the learner" School Review. 82, 527-540.

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Causal studies of the relationship of self-concept to school achievement are limited and the relationship remains to be conclusively proven. The majority of the studies examining the relationship are correlational in nature and indicate that a low positive relationship exists.

There is some evidence to indicate that high ability children tend to have high self-concepts and low ability children tend to have low self-concepts. However, self-concept is also influenced by the extent of the achievement and not merely by ability.

Finally, factor specific self-concepts may be more useful than global measures when examining relationships between self-concept and achievement.

CHAPTER 6. SOCIAL INFLUENCES ON THE SELF-CONCEPT.

INTRODUCTION.

As mentioned many times before a cursory survey of self-concept literature is sufficient to illustrate that self theories differ in many ways. Among these diverse opinions, however, two assumptions seem basic to all current theories of the self.

The first assumption is that the concept of self is a product of social interaction. This idea is based on the early theorizing of Cooley, Mead, Sullivan etc as discussed in Chapter 1. More specifically, the development of, and change in, the self-concept is directly related to the responses, perceived or otherwise, of significant others. The second major assumption is that the concept of self has a predictable effect on behaviour. Such theorists, for example, as Combs and Snygg and Rogers assign to the construct of self the motivation of all behaviour.

This chapter will examine the empirical evidence for the effect on self-concept of significant others and the proposed related changes in behaviour resulting from a change in self-concept. Continuing with the notion that the self develops in a social environment, studies that examine friend interaction and perception will be assessed for their contribution to self theory. Finally, the relationship of peer status with self-concept will be discussed, since this would be an expected outcome of the social theory of the self. In addition, this latter relationship forms part of the main investigation in Part 2 of this study i.e. Chapter 16.

THE ROLE OF SIGNIFICANT OTHERS.

The concept of significant others, as already stated, is a major tenet of self theory. This aspect has been considered in Chapter 5 with reference to the educational

effects of significant others. This section, however, will deal with significant others within a social context, although some overlap is inevitable, since large groups of children are often only accessible as research samples in educational establishments.

One study that investigated the perceptions of 40 students regarding significant others was Backman etal (1963) (1). They examined the change in self-concepts by manipulating ratings given to their students. Backman etal attempted to show that the greater the number of significant others, who are perceived by the student to agree in defining an aspect of self, the greater the resistance will be to changing that self evaluation. The students were asked to write down 5 close friends or relatives whose opinions they valued, and to select a statement, they thought, most likely to be assigned to themselves by the 5 people. They then chose a trait which they believed these significant people did not assign to them.

The subjects then filled out personality measurement scales which they believed would be scored by a professional psychologist. In actual fact, these scores were manipulated so false assessments were made in an attempt to alter the students' perceptions of themselves. It was found that the degree of change in the high consensus trait was much lower than the change produced in the low consensus trait. This early study thus indicates that perceived traits, which friends do not agree on, are more amenable to change; and that perceived traits, that significant others do agree on, are more resistant to change.

The idea of manipulating the evaluations of significant others was common to many early studies. An early attempt to alter self reports by manipulating evaluations in both a positive and negative direction was made by Videbeck (1960) (2). Some 30 students from introductory speech classes rated themselves regarding their

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(1). Backman, C.W., Secord, P.F. and Peirce, J.R. (1963) "Resistance to change in the self-concept as a function of consensus among significant others." Sociometry. 26, 102-111.
(2). Videbeck, R. (1960) "Self conceptions and the reaction of others" Sociometry. 23, 351-362.

adequacy of oral presentation. They then read six poems for a "visiting speech expert". It was found that the procedure was effective at changing the individual's self rating. Students given approval or disapproval treatment did not show any greater tendency to change in a positive direction than in a negative direction. However, the mean amount of change reported in the differing categories indicated that it was easier to lower the subjects' self ratings than to raise them.

The importance of the study by Videbeck lies not so much in its results, but rather in its effects. It was a catalyst, in that many other researchers either repeated his study or attempted to extend his findings. One such replication was performed by Maehr etal (1962) (3), using the body concepts of 31 adolescent boys aged 14-16 years old. The emphasis in this study was in using a different subject pool, a different set of manipulating instructions and a different attribute for self-evaluation. The results, even so, were in accord with those obtained by Videbeck, except for one.

In both studies, the disapproving reaction of the significant other resulted in a significant decrease in self-regard. However, in Maehr's research, approval also brought about a significant amount of change in a positive direction, while in Videbeck's this trend was not statistically significant. Furthermore, in both studies there was a diminishing spread of effect to related areas of self regard, which were not directly approved or disapproved. The difference, in Maehr's study to that of Videbeck's, was that disapproval did not bring about a significantly greater amount of absolute change than approval.

Interest in the role of significant others increased. Subsequently, the time scale over which these changes in self-concept persisted, and the effect of the number of "treatment" administrations, were investigated. A notable example was the research of Haas and Maehr (1965) (4), who in a study of 31 eighth grade boys

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(3). Maehr, M.L., Mensing, J. and Nafzger, S. (1962) "Concept of self and the reaction of others." Sociometry. 25, 353-357.
(4). Haas, H.I. and Maehr, M.L. (1965) "Two experiments on the concept of self and the reaction of others." J. Personality and Social Psychol. 1, 100-105.

in a physical education class, designed a series of experiments to change aspects of self-evaluation.

Results of the first experiment showed that the changes induced, because of the treatment, were greatest immediately following the evaluations; after that measurement, however, they persisted at the same level for the duration of the six weeks' study. In the second experiment, the variable was the number of evaluative treatments. This time 30 boys were told that they had performed well on an assigned task. This was administered twice, the second time only two days after the first. Comparison between the two experiments showed that for directly related items, the change induced by the first administration of the second experiment was virtually identical to that induced by the treatment in the first experiment. However, after the second administration of evaluative remarks, the boys in the second experiment showed a greater change in the predicted direction, and this difference persisted for the six weeks.

The studies reviewed above demonstrate that the concept of self does vary predictably with the reaction of significant others. However, another important question arises. How effective will be the evaluations of the significant other if they do not correspond to the child's evaluations of himself?

In an attempt to answer this question, replicate the last two studies and to define more precisely selected variables of self-concept change, Ludwig and Maehr (1967) (5) used 65 junior high school students aged 12-14 years old. These boys performed various simple physical tasks in front of a physical development expert. The expert then uttered either approval or disapproval statements to the boys irrespective of their performance. Tests of physical self-concept, general self-concept and preference for physical activity had been administered prior to the evaluations of the expert, and then at various intervals afterwards.

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(5). Ludwig, D.J. and Maehr, M.L. (1967) "Changes in self concept and stated behavioral preferences" Child Development. 38, 453-467.

The reaction of the significant other did result in changed self ratings and this is merely a confirmation of previous research. However, the evidence is stronger in that the two evaluation groups differed significantly from each other and from the control group. In addition, the changes in the two evaluation groups were persistent, and not only did the boys change in areas directly treated, but also in areas quite remote in content from the treatment. However, the role of congruency in these changes was by no means clear or consistent, and this needs further study.

In a study that would be difficult to generalise from, Girona (1972) (6) investigated the role of significant others on a wide range of test results. He used 21 institutionalised children, ranging in age from 6 to 9 years, and paired them randomly with 21 college students who planned weekend activities for them. These activities included visits to museums, sporting events, amusement parks, the circus etc., but specifically excluded coaching, tutoring and the like. It was expected that as a result of the one to one interaction, over a period of 10 weekends, measurable changes would occur. The expected outcomes would thus lend support to those who suggest personality and self-concept changes will occur as a result of positive experiences with significant others.

The results obtained provided only partial support for the expectations in that significant changes were recorded in children's scores in three of the eight parameters studied, namely, I.Q., general adjustment and need nurturance. In fact, a criticism of this study is that a wide span of measures were used in the hope that "something would turn up". Hence some measures obviously would not be significant. What appears to be surprising, at first glance, is that self-concept changes, although sizeable and in the expected direction, did not reach statistical significance. Perhaps this under lines the idea that to be a significant other, evaluations

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(6). Girona, R. (1972) "Changes operated in institutionalized children as a result of controlled interaction with a 'significant adult'." J. Educ. Research. 65, 343-346.

have to be made. This did not happen in this research.

It can be seen from this section that to effect change in a subject's self-concept, an individual needs to be a significant other of high relative status and he must be perceived to be competent to evaluate. The number of these evaluations and their nature seem to be of importance, but what remains in doubt is the effect of significant others on strongly held beliefs about one's self.

FRIEND PERCEPTION AND THE SELF-CONCEPT.

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A significant other can be a figure in authority, but it is more often than not a friend. The role of friendship in the development of self-concepts is considerable. Friendship patterns and interaction have formed the basis for many self-concept studies. This section will examine some attempts at determining the pattern of this relationship.

The effects of peer interaction over a period of six weeks on the self-concepts of the participants have been studied by Manis (1955) (7). He found that over a period of time any changes that do take place in self-concept will be influenced more by friends than non-friends, and these changes will increase the agreement between his self-concept and his friend's perception of him.

This influence of peer interaction in modifying self-concept was also investigated by Kipnis (1961) (8). He found that students changed their self-evaluations, during a six week period of interaction, so that they perceived smaller differences between them and their best friends. In this time students, who thought that they were similar to their best friends, changed little in self-concept, but students who considered themselves unlike their best friends, tended to change their self-concepts.

These early studies suggest that self-concepts can change as a

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(7). Manis, M. (1955) "Social interaction and the self concept" J. Abnormal and Social Psychol. 51, 362-370.
(8). Kipnis, D.M. (1961) "Changes in self concepts in relation to perception of others" J. of Personality. 29, 449-465.

result of peer interaction. A child entering school must be subjected to powerful influences from his peers. His reaction to them can modify his own self-concepts. The perception he has of his friends is thus important to his own self system. Hence when a child chooses his friends, what does he look for? How do children perceive their friends, and those chosen as friends sociometrically? Do some children choose as friends those who differ from them in characteristics? This is obviously a very complex matter and what individuals look for in their choice of friends is considered below only with regard to its effect on their self-concepts.

Thompson and Nishmura (1952) (9) in their study of a very small sample of eight pairs of adults who were friends, tested the idea that friendship may be determined in part by a compatability of "ideals". They found a high correlation between an individual's own ideal and that individual's evaluation of his friend and tentatively proposed that their subjects tend to idealise their friends.

Somewhat similar findings were found by McKenna etal (1956) (10), who studied 90 female students. They measured the students own self and ideal self-concepts, and also the concepts of her best friend and second best friend. They discovered that the self-concepts of a student's friends resembled her own ideal self-concept on average more closely than her own self-concept.

This tendency to idealise their friends was discovered for older students, and its effect had not been considered on younger children until Northway and Detweiler (1955) (11) studied 36 girls in the seventh grade. They were interested in comparing how the girls perceived their friends and non-friends. The friends were discovered by sociometric testing, and they found that the children perceived their friends as possessing certain desirable qualities to a greater extent than themselves. The girls' non-friends were perceived as

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(9). Thompson, W.R. and Nishmura, R. (1952) "Some determinants of friendship" J. of Personality. 20, 305-313.
(10). McKenna, H.V., Hofstaetter, P.R. and O'Connor, J.P. (1956) "The concepts of the ideal self and of the friend" J. of Personality. 24, 262-271.
(11). Northway, M.L. and Detweiler, J. (1955) "Children's perceptions of friends and non-friends" Sociometry. 18, 527-531.

possessing these desirable traits to a lesser extent than themselves.

Further evidence has been provided by Davitz (1955) (12), who studied 31 children of differing ages, staying at a summer camp. He found that children had an underlying need to be similar to a valued person. In addition, the child's highest sociometric choices tended to be seen as more similar to himself than were the child's lowest sociometric choices. The child's perception of the highest sociometric choices as being similar to himself was in actual fact mistaken.

In general it could be said that these studies point to the fact that similarity rather than dissimilarity is sought for in a friend, and that friends tend to be idealised. Whether this would pertain in the case of all traits can not be inferred from the above research. The main fault with the above studies, besides that of limited samples, is that all the traits used were socially desirable ones and it is not surprising that subjects would tend to see their friends as having a reasonable share of these traits.

A related topic to the above studies is "interpersonal attraction" which has received a great deal of attention in the last fifteen years or so. Hendrick and Page (1970) (13) report that numerous studies have found a positive linear relationship between attitude similarity and interpersonal attraction. This relation was examined by Byrne and Griffith (1966) (14) using children in the age range 9-20 years old. They considered that the relationship was tested and proven with college students, and they thus attempted to generalise this law of attraction using the above age range. They found that at each level, as the proportion of similar attitudes between the subject and another person increased, so did the perceived

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(12). Davitz, J.R. (1955) "Social perception and sociometric choice" J. Abnormal and Social Psychol. 50, 173-176.
(13). Hendrick, C. and Page, H.A. (1970) "Self-esteem, attitude similarity and attraction" J. of Personality. 38, 588-601.
(14). Byrne, D. and Griffith, W. (1966) "A developmental investigation of the law of attraction" J. Person. and Soc. Psychol. 4, 699-702.

attraction between them.

In addition to the linear relationship between attitude similarity and attraction, other variables have been found to hold similar relationships with attraction. Pertinent to this study is the work of Griffitt (1969) (15) who attempted to relate the variable of self-concept with that of interpersonal attraction. He considered that the self would determine to some extent interpersonal attraction. Griffitt found that a stranger, whose self-concept is similar to that of the subject, is liked significantly better than one whose self-concept is dissimilar to that of the subject. This was also the case in terms of ideal self-concept. Thus self-concept and interpersonal attraction are related positively to each other.

SOCIAL STATUS AND THE SELF-CONCEPT.

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It has been reasoned that a person, who has a high social status among his peers, will also possess a high self-concept. This suggests that, in general, a person who is well liked and accepted by his peers will also have a high self regard for himself.

The various studies that have attempted to investigate this proposed relationship have been correlational in nature. Thus even if a positive relationship is established, no evidence of a causative influence is gained. If this relationship exists, and some writers doubt it, there still remains the uncertain problem of which effect is the antecedent. Is it because a person is well liked that his self-concept is modified, or is it because he already possesses a healthy self-concept which in turn influences his behaviour with his peers in such a way as to make him more acceptable? A third possibility exists in that both interact with each other, and modify each other, to such a point that it is difficult, if not impossible to discover the antecedent cause.

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(15). Griffitt, W.B. (1969) "Personality similarity and self-concept as determinants of interpersonal attraction" J. of Psychology 78, 137-146.

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The first three researches below have been chosen to illustrate the investigations that typified initial interest in this relationship. Only brief reviews will be presented since these early studies were not primarily concerned with the relationship. It formed part of their research, but was usually one hypothesis or variable among others. They are also interesting historically, but since they examine the views of adults they can only indicate the path for research into children's self-concepts and sociometric status.

In considering the stability of the self-concept Brownfain (1952) (16) tested 62 male students. He found that those students who had stable self-concepts were, among other characteristics, better liked and considered more popular by their peers than those students who had an unstable self-concept. Similar results were reported by Turner and Van der lippe (1958) (17) who compared several variables between the 25 students in their sample who were highest in self and ideal self correlation, with the 25 students who were lowest in self and ideal self correlation. They found that the highest group were given higher sociometric ratings by fellow students, than the lowest group.

An early illustration of a negative finding for the sociometric status and self-concept relationship is provided by Fey (1955) (18). He tried to relate the variable of acceptance by others to the expressed attitudes of self acceptance and also acceptance of others. Using 58 medical students he found that those students with high self acceptance scores tended to feel accepted by others. In actual fact, there were neither more nor less accepted by their peers than the students with low acceptance of self.

The last three studies have indicated the difference in results that can be obtained when an attempt is made to relate a self-

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(16). Brownfain, J.J. (1952) "Stability of the self-concept as a dimension of personality" J. Abnormal and Soc. Psychol. 47, 597-606.

(17). Turner, R.H. and Vanderlippe, R.H. (1958) "Self-ideal congruence as an index of adjustment" J. Abnormal and Social Psychol. 57, 202-206.

(18). Fey, W.F. (1955) "Acceptance by others and its relation to acceptance of self and others: a revaluation" J. Abnormal and and Social Psychol. 50, 274-276.

concept measure to a sociometric one. The following studies deal exclusively with children, and once again, differing results are apparent. Reasons for these differences are discussed. The next four studies were the major investigations in this area during the decade 1959 to 1969. Each will be reviewed as to its major findings and their differences will be examined afterwards.

Coopersmith (1959) (19) using his own method of determining self esteem applied it to 102 fifth and sixth grade children. The sociometric scale used was a peer nomination technique. This consisted of a one criterion - three choice measure in which the children chose the three children in their class who they would most like to have as their best friends. The sociometric status was evaluated as the total number of times each child was chosen by his classmates. The correlation between these two measures was found to be moderately positive with $r=0.37$, $p < .01$.

A different pair of measures were used by Reese (1961) (20). He employed the self-concept scale designed for children by Lipsitt (1958) (21) and applied it to 408 fourth, sixth and eighth graders. The sociometric technique which he used was a five point rating scale, ranging from best friend to those in the class who were disliked. He found no age or sex differences, and his findings indicated that the relationship of self-concept and sociometric status was curvilinear. This implies that the children with the highest sociometric status occurred in the group of children with the moderate self-concept scores.

Using the same self-concept scales as in the previous study, Horowitz (1962) (22) tested 111 children in the fourth, fifth and

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(19). Coopersmith, S.A. (1959) "A method of determining types of self-esteem." J. Abnormal and Soc. Psychol. 59, 87-94.
(20). Reese, H.W. (1961) "Relationship between self acceptance and sociometric choices" J. Abnormal and Social Psychol. 62, 472-474.
(21). Lipsitt, L.P. (1958) "A self concept scale for children and its relationship to the children's form of the manifest anxiety scale" Child Development. 29, 463-472.
(22). Horowitz, F.D. (1962) "The relationship of anxiety, self concept, and sociometric status among fourth, fifth, and sixth grade children." J. Abnormal and Social Psychol. 65, 212-214.

sixth grades. He used a different sociometric measure: that of rank order. Each child had to rank all the same sexed members in his class in order of popularity. The only significant relationship he found was in the fourth grade i.e. r=0.55.

While reviewing the above three studies, and their inconsistent findings, Guardo (1969) (23) reinvestigated the proposed relationship. Her sample consisted of 114 children from the sixth grade. A peer nomination form of sociometric measure was used in which the children were asked to list three names of same sex class mates for each of the following designations - "most popular", "least popular", "liked the most", and "disliked the most". The self-concept scale used was the instrument developed by Piers and Harris. The score obtained was correlated with the four sociometric scores obtained by summing all the nominations received by each child on each of the four criteria.

The results indicated that linear relationships were obtained, and all correlations were significant. A sex difference was apparent in that on all four sociometric and self-concept relationships the girls correlated higher and more significantly than the boys. Thus Guardo's study generally supported Coopersmith's, contradicted the findings of Horowitz, at least as far as the girls were concerned, and rejected Reese's findings that the relationship is curvilinear. She also suggested that being "popular" and "being liked" are not synonymous. They are different, yet related, variables and in her opinion should not be used as identical labels in sociometric measurement.

The varying findings of these four studies are difficult to interpret. It is perhaps interesting that in Reese's and Horowitz's studies the same self-concept measure was used, but different sociometric indices. These studies offered different findings. However, in Coopersmith's and Guardo's studies similar sociometric measures were used, but different self-concept measures. These studies

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(23). Guardo, C.J. (1969) "Sociometric status and self-concept in sixth graders" J. Educational Research. 62, 320-322.

reported similar findings.

This rough analysis of the results leads Guardo to examine the differing sociometric techniques for a solution to the problem of varying results. She urges that the discrepancies are not due to the self-concept measures, but to the sociometric measures used. Sociometric status is variously related to the self-concept depending on the label used for the nomination. The relationship is valid, but because of the methodological weaknesses of sociometric measurement, she considers that it appears spurious.

This claim, however, is not proven. To demonstrate the independence of the self-concept measures it would be necessary to correlate the scores obtained by these measures. This would indicate if they were measuring the same constructs. Self-concept measures vary so much that it seems unlikely that they will not influence any findings in which they are used. Indeed, it is the basic premise of the present study that different aspects of the self will relate in varying ways with the same variable.

Recent studies that have investigated this relationship have produced various findings. For example, Bradley and Newhouse (1975) (24) gave the Piers-Harris self-concept scale to 158 sixth graders. They obtained both positive and negative data on the sociometric status of all the children. They asked them to provide up to three names of children whom they liked the most and up to three names of classmates they liked least. They used a two dimensional analysis of variance on the male-female dichotomy and positive-negative sociometric liking status. Highly significant differences ($p < .001$) were present in the direction of males and females possessing positive liking status in terms of their self-concepts. Their results indicate that the concept of self is a factor highly related to how elementary school children are perceived by their peers. High

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(24). Bradley, F.O. and Newhouse, R.C. (1975) "Sociometric choice and self perceptions of upper elementary school children" Psychology in the Schools 12, 219-222.

status self-concept scores were associated with positive sociometric status.

This would suggest that isolates in a classroom would have low self-concepts. This hypothesis was investigated by Rudner etal (1976) (25). They studied 112 9-12 year olds from an urban school and 129 from a rural school. Although there were misgivings about the design of the sociometric instrument used to identify the isolate i.e. the technique described by M.M. Ohlsen (1964), no such relationship was found.

Finally, using a social self-concept scale as measured by the Self Descriptive Inventory, Chambliss etal (1978) (26) investigated the accuracy of social self-concepts of 93 seventh, eighth and ninth graders by examining the relationship between self descriptions of peer relations and actual popularity within a group of peers. The results revealed a moderate relationship of $r = .29$, $p < .05$. As a group therefore these junior high school children tended to have only moderately accurate social self-concepts.

Thus this section ends as it began with a mixture of negative findings, positive findings and moderate correlations. The relationship is far from clear. The explanations for these results are far from convincing. The balance of the results however seem to favour a moderate and positive association between social status and self-concept.

SUMMARY.

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The role of the significant other in self-concept development is considerable. Past studies have indicated that when significant others are perceived by a child to agree on a particular trait, then that trait is resistant to change. A corresponding disapproving reaction from a significant other can lead to a decrease in his

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(25). Rudner, H.L., Markoff, M. and Westwood, M. (1976) "The relationship between isolation and self concept in the elementary school classroom: an exploratory study" Canadian Counsellor. 10, 110-115.

(26). Chambliss, J., Muller, D., Hulnick, R. and Wood, M. (1978) "Relationships between self-concept, self-esteem, popularity, and social judgements of junior high school students" The Journal of Psychol. 98, 91-98.

self-regard. However, to produce any change in self-concept, the significant other needs to be highly valued and considered competent to evaluate.

Friends are seen as significant others, and are a major contributor to the developing self-concept. Peer interaction can modify self-concept. In general, similarity rather than dissimilarity is looked for in friends, and a tendency exists for friends to be idealised. Self-concept and interpersonal attraction appears to be positively related.

Consideration of social status and self-concept produce various findings. In general, a moderately positive relationship tends to exist, but research in this area is far from conclusive. In Chapter 16 this relationship is examined when a factor specific self-concept is employed in preference to a general self-concept measure.

CHAPTER 7. GENERAL PROBLEMS IN SELF-CONCEPT MEASUREMENT.

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INTRODUCTION.

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This chapter will analyse the problems in general that arise in attempting to measure the self-concept. Problems that are specifically related to particular assessment techniques will be considered later in Chapter 8.

It is an understatement to say that it is difficult to make an accurate assessment of a person's self-concept. Inherently it is difficult, because it is highly subjective, but it is also methodologically difficult. In general, research into the self-concept has been too open ended. Many have been based upon tenuous theories, and others have suffered from severe design faults. It is not overstating the fact to claim that thousands of research articles have been published which deal directly or indirectly with the self-concept. This mass of literature often appears to have little in common, and the measuring techniques used in these studies certainly lack equivalence.

Some writers, eg McCandless (1967, P.260) (1), would consider that no one method, that has attempted to measure the self-concept of a person, has captured the idea in its entirety. The hope is that, in using a carefully designed instrument, enough of the self-concept will be assessed to demonstrate that it is an important personality variable.

The crucial phrase is "carefully designed". To achieve this instrument, it is necessary to be aware of past problems encountered in self-concept measurement. A knowledge of these problems will also be important to the empirical section of this present study in Part 2.

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(1). McCandless, B.R. (1967) Children: Behaviour and Development. Holt, Rinehart & Winston.

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INADEQUATE SELF-CONCEPT DEFINITIONS.

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A major problem in self-concept measurement is the variety of forms in which the self-concept is conceptualised by the researchers. There is debate, as discussed in Chapter 2 of this study, as to whether the self is fact or a construct; subject or object; single or multiple etc. Soares and Soares (1973) (2) would add two more to this list; that of "resource or value" and "figure or ground". They ask the question that if the self-concept is all these things how can it be defined operationally in order to measure it?

They do, however, operationalise it by defining the self-concept as the system of perceptions which the individual formulates of himself in awareness of his distinctive existence. Yet their "self perception" is one of many terms, all adding to the variety of definitions already prevalent eg. self-concept of ability, self esteem, self image, self evaluation and self regard to quote only a few. If there are theoretical differences underlying the various definitions, it is not surprising that it is impossible to make generalizations across studies and that it is extremely difficult to interpret results.

Thus, many of the problems of measuring the self-concept are brought about by the failure of researchers to adequately define their construct. La Benne and Green (1969, P.111) (3) consider that in a limited research setting this presents little problem. However, when researchers seek to relate their findings to those of other researchers there is no base to do so. Furthermore, consideration of some self-concept definitions reveals that there is only limited agreement among them, and findings from these studies cannot be compared.

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(2). Soares, L.M. and Soares, A.T. (1973) Tests of self concept as measures of personality change. Address presented at the American Educ. Research Association Meeting: New Orleans: Louisiana.

(3). La Benne, W.D. and Greene, B.I. (1969) Educational Implications of Self Concept Theory. Goodyear Pub. Co.; Pacific Palisades: California.

At the outset of any research, the meaning of "self-concept" needs to be stated clearly. This will then indicate which other studies can be compared with it. A survey of self-concept research shows that this essential condition is too often ignored.

THE EQUIVALENCE OF SELF-CONCEPT MEASURES.

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It is obvious that the previous problem concerning the lack of precision in defining the self-concept is reflected in the lack of effective instrumentation. A wide variety of instruments have been devised, but the problem in self-concept measurement arises because there has been little or no consistency in the measuring devices used. Innumerable instruments have been used, and new ones are being devised with almost every research study. This multiplicity of test instruments has led to little replication of self-concept studies, which makes it extremely difficult or impossible to correlate and integrate those studies into one broad base.

In the opinion of Stanwyck and Felker (1971) (4) self-concept results are useless without the knowledge of the instrument used the measurement, and the definition of the self-concept from which the instrument was derived. It is interesting to note that they report evidence of differing results according to the self-concept measure employed. This helps to substantiate the comments of Kubiniec (1970) (5) who considers that the same instruments are employed to measure different self-concepts, and the same constructs are measured by different instruments!

It is of paramount importance that researchers must not assume that the various self-concept measures are interchangeable. The researcher is obligated to prove the equivalence of any self-concept

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(4). Stanwyck, D.J. and Felker, D.W. (1971) Measuring the self-concept: a factor analytic study. Paper presented at the annual meeting of the National Council on Measurement in Education, New York.

(5). Kubiniec, C.M. (1970) "The relative efficacy of various dimensions of the self-concept in predicting academic achievement." American Educ. Res. Journal. 71, 321-336.

measure he uses. These measures cannot be taken to be equivalent unless they can be shown to be related to each other to a high degree. In the absence of such an empirical demonstration, the results obtained in using one instrument cannot be generalised to results obtained using another instrument.

THE SUBJECTIVE NATURE OF THE SELF-CONCEPT.

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Another general problem in self-concept measurement is that the self-concept is considered to be private and personal and is not directly observable. Some theorists, eg Combs etal (1963) (6), maintain that the self-concept cannot be measured at all, but only inferred indirectly from people's behaviour. The obvious class of behaviour is what the subject has to say about himself. A more accurate assessment can be made when a larger sample of behaviour is used. They argue that if behaviour is a function of perception, it should be possible to observe behaviour, and infer the nature of the self perception which produced the behaviour.

This latter point calls for trained observers and in my opinion is likely to cause as much confusion in interpreting self-concept results as any other single factor. My opinions are in accord with those of Fitts etal (1971, P.39) (7), who believe that people are in varying degrees of contact with their phenomenal selves, and each person has some kind of concept of himself that he can share, if he is willing to do so. One simple and direct way to obtain at least a sample of the self-concept is to ask people to report or describe their self-concept. Thus, carefully designed self report techniques are perhaps the best way of currently assessing the self-concept, especially for groups. This technique will be considered in greater detail in Chapter 8.

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(6). Combs, A.W., Soper, D.W. and Courson, C.C. (1963) "The measurement of self-concept and self-report." Educ. and Psychol. Measurement 23, 493-500.

(7). Fitts, W.H. etal (1971) "The Self Concept and Self-Actualization." Research Monograph No.3, Nashville, Dede Wallace Center.

SOCIAL DESIRABILITY.

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The element of social desirability is a very real problem when measuring self-concepts. This question has frequently been raised, and it concerns the tendency of subjects to attribute to themselves personality traits that are deemed to be socially desirable. In addition, they tend to reject those ideas that are socially undesirable. However, it can be argued that the social desirability factor has no effect on the results. It is claimed that what a subject says about himself is a valid indication of how he feels about himself, at the time he is giving the responses. Nevertheless, it is reasonable to assume that this factor does operate in many self-concept measures.

Together with social desirability lies the problem of response set. This is one of the major problems of the self report technique. The response set is a conscious or unconscious tendency in the individual to impose a pattern on his responding, in accordance with some personal motivation, so that a true measure of his attitudes is obscured. The child may set out to show himself in a good light, and produce what he believes are socially desirable responses. He may also express his answers consistently in one way regardless of content i.e. like, dislike or neutral terms. He may also consistently avoid using the extreme response categories and so on.

Coopersmith (1967, P.254) (8) maintains that the question of response sets and defensive postures have long clouded the acceptance of studies of the self-concept, but may appear more critical in theory than in the relationships that actually prevail. Nevertheless, it is a problem, and one that all researchers should be aware of when planning their scales.

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(8). Coopersmith, S. (1967) The Antecedents of Self Esteem. W.H. Freeman Co; San Francisco.

RESEARCH DESIGNS.
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In addition to the problems already mentioned, there are differences in research design which could make generalisation and interpretation across studies difficult if not impossible. An even more serious fault in some studies is that the research design itself is defective. The examination of the various research designs undertaken by Wylie (1968, P.761cf) (9) is still second to none, and the dependence of this particular section on her work is obvious.

An overview of the many studies in the area of self-concept theory quickly reveals that many are of the response-response (R-R) design. It is clear from these designs that one can never unequivocally infer cause - effect relationships. Although R-R correlational designs may be easier, and may be at times the only possible kind for a given proposition, controlled antecedent - consequent studies are as necessary and appropriate in testing phenomenological theories as in behaviouristic ones.

The R-R designs can lead to unnecessary ambiguities in interpreting the obtained results, and there is also great danger of artifactual contamination between the two measures being controlled. Care must be taken in establishing independent measures for the antecedent responses, from which the person's self-concept is inferred.

According to Wylie there are many ways in which research designs can be inadequately controlled, and as a general statement, it can be said that the design of the majority of researches in self-concept theory have been uncontrolled in one or more important aspects. The list below is part of her classification of the methodological difficulties found in studies concerning the self-concept.

1. The method is often vaguely indicated and thus analysis and replication is impossible.

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(9). Wylie, R.C. (1968) "The present status of self theory" In: Borgatta, E.F. and Lambert, W.W. Handbook on Personality. Ch. 12. Chicago: Rand McNally.

2. In some studies there are not enough different control groups to hold constant or account for all the important variables.
3. The use of sociological independent variables which have unknown relevance to psychological variables precludes clear psychological interpretations of results.
4. Various types of overgeneralisation occur i.e. often the limitations of the study are not admitted.
5. There is a lack of factor analysis in many designs.

In general, to conclude this section, the research design of the study can bias the results obtained. Care must be taken to ensure that the rationale for the study is based on self-concept theory, the terms are operationalized, the type of measures to be used are stated and controlled, the sample considered and the data analysed by suitable statistical techniques.

PROBLEMS COMMON TO PSYCHOLOGICAL TESTING.
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This short section suggests the general problems that not only apply to self-concept measurement, but also apply to all psychological testing. No attempt will be made to explain these problems in detail, but every researcher should be aware of them and try to reduce their effect.

Care has to be given to the vocabulary level of the items, the instructions need to be clear and the actual mechanics of the answer sheet need to be understood. These factors can often limit a sample to a particular level of intelligence and literacy. Instruments need to statistically pure, the procedure standardised and due regard paid to sampling techniques. The usefulness of the instrument often depends on the time required to administer it, its ease of application and its economy of scoring. Another major consideration depends upon the fact as to whether the results obtained, although statistically significant, have sufficient educational or psychological significance, for the effort expanded on the research. In all studies, consideration must be given to experimeter and environmental variables. Two most important factors that need attention, but unfortunately are not always reported in self-concept studies, are validity and reliability. These two

influences are important enough to merit separate sections.

VALIDITY OF SELF-CONCEPT MEASURES.

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Self-concept results are worthless without knowledge of the instrument used for the measurement. However, this item of information is frequently not provided in self-concept research. The knowledge of a self-concept measure is greatly enhanced by a consideration of its validity. Many researchers in the past have paid little consideration to validity in the construction of their scales.

Simply stated, a test is valid when it measures what it is presumed to measure. However, as Guilford and Fruchter (1973, P.425) (10) says, this statement is only one step better than the definition that states that a test is valid if it measures the truth. It is not possible to give a single number to indicate the validity of a test, and attaining validity is far from a straightforward process.

There are various ways of measuring or indicating the validity of a test. Perhaps the most common one in self-concept research, and also the weakest, is face validity. This simply means that the test appears on inspection to be measuring the qualities it intends to measure. All too often measures in self-concept research appear to have only face validity, indicating that the measure is valid because it seems to be measuring self constructs. The major problem in accepting this is that all a researcher would have to do is to elict self evaluative comments from his sample and his measure would be valid. The logical extension of this is that all such measures would be equivalent. This is obviously not a stringent enough criterion for validity, and no results obtained in this way could be generalised to those results obtained using another instrument, unless other means of demonstrating validity are made.

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(10). Guilford, J.P. and Fruchter, B. (1973) Fundamental Statistics in Psychology and Education. McGraw - Hill; Kogakusha.

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In Wylie's view (1968, P.756) (11) construct validity is necessary because self theory explicitly requires the tester to measure a stated class of variables i.e. the subject's conscious processes. There is no one way of showing construct validity, but a combination of the following ideas will help to attain it. What follows is an amalgamation of the views of Cronbach and Meehl (1955) (12), Campbell and Fiske (1959) (13) and Wylie which provide the base for exploring construct validity.

Initially, the tester should examine all the possible means by which bias could be introduced into his measurements. He should make analyses of the measuring process to determine what other variables, other than the construct in question, might be influencing the results. It would be too simple to assume that the responses made by the subject are indicative only of his self feelings. There are many other factors that could influence the subject's response. In addition to those mentioned in the previous sections other variables such as lack of rapport, test administration etc could effect the validity of the self construct. Although some of these examples may be irrelevant, adequate precautions need to be taken to eliminate or control them.

Another step in the direction of construct validity is to obtain inter correlations with other measures that are presumed to assess the same construct. This is sometimes called concurrent validity. This standard, according to Wylie, has rarely been applied. However, it seems to me, that even after obtaining suitable inter correlations between self-concept measures, there still remains the basic doubt as to what is actually being measured. This kind of validity assumes that there exists other measures of self-concept that are valid. It is not surprising that few researchers quote this kind of validity data, since these kinds of validated scales are not numerous in self-concept research.

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(11). Wylie, R.C. (1968) "The present status of self theory" In: Borgatta, E.F. and Lambert, W.W. Handbook on Personality. Ch.12. Chicago: Rand McNally.

(12). Cronbach, L.J. and Meehl, P.E. (1955) "Construct validity in psychological tests" Psychological Bulletin 52, 281-302.

(13). Campbell, D. and Fiske, D. (1959) "Convergent and discriminant validation by the multitrait - multimethod matrix" Psychological Bulletin. 56, 81-105.

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Construct validity is enhanced by making internal item analyses and factor analyses of the instrument. This determines how many basic processes must be postulated to account for response variance on the instrument. Wylie's complaint that few instruments have been internally factor analysed could have been the spur needed by testers to use the technique. It seems to me that the use of factor analysis in self-concept studies is on the increase; and, at the very least, are used more now than in the pre-Wylie review era of 1968. To give just a few examples of its use in the early seventies Busby etal (1974) (14), Kokenes (1974) (15), Judd and Smith (1974) (16) used factor analysis in general studies of the self; Gable etal (1973) (17) used the technique in examining a self-concept scale and Stanwyck (1972) (18) is one of many examples of its use in thesis work.

The most serious result of the recent use of factor analysis appears to me to be the condemnation of early self-concept measures. One wonders what would happen if previous scales, claiming to measure self constructs on the basis of face validity, were subjected to factor analysis. One suspects so many extraneous factors would be uncovered as to make the research of little value.

It is the view of Guilford and Fruchter (1973, P.426) (19) that the best form of validity can be shown by listing the factors of the test with which it correlates, and their proportions of variances in the test. This kind of factorial validity is the most satisfactory form of construct validity.

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(14). Busby, W.A., Fillmer, H.T. and Smittle, P. (1974) "Interrelationship between self-concept, visual perception, and reading disabilities." J. of Experimental Educ. 42, 1-6.
(15). Kokenes, B. (1974) "Grade level differences in factors of self-esteem" Development Psychology 10, 954-958.
(16). Judd, L.R. and Smith, C.B. (1974) "Discrepancy score validity in self-and ideal self-concept measurement" J. Counseling Psychol. 21, 156-158.
(17). Gable, R.K., La Salle, A.J. and Cook, K.E. (1973) "Dimension of self perception: Tennessee Self Concept Scale" Perceptual and Motor Skills 36, 551-560.
(18). Stanwyck, J.J. (1972) "Self concept development: A longitudinal study" Unpublished Ph.D. Thesis. Purdue University.
(19). Guilford, J.P. and Fruchter, B. (1973) Fundamental Statistics in Psychology and Education. McGraw - Hill; Kogakusha.

It has to be considered that even when factors are obtained, they do not necessarily represent true self feelings. It does show, nevertheless, whether the tester's opinions concerning item collection, or number of variables present, are correct or not. It also helps to make more obvious the presence of irrelevant variables.

Another form of validity that is in common use, and could provide further evidence for construct validity, is predictive validity. The tester uses the instrument to predict the relationship between the trait that it is alleged to measure with some other variable. Thus a study is designed on the basis of certain theoretical premises, together with an assumption concerning the construct validity of the instrument that is being used to measure one of the variables. Positive findings would then offer a measure of support to the construct validity of the instrument and to the theory behind the study.

In Wylie's opinion, this type of validity coupled with only face validity would never suffice to establish the construct validity of a newly designed instrument. Unfortunately in most self-concept investigations the only evidence provided for construct validity of the instrument is that of positive findings predicted by self theory. A further point should be added here. If the theory is wrong in one particular aspect, then the predicative validity of the instrument could be undermined, although it could in actual fact be a valid measure.

This type of validity was also examined by Lowe (1961) (20) who considers that a construct is only meaningful when successful validation studies have found significant relationships with established variables. He lists many attempts at validating self-concept measures by establishing predicative relationships. For example, positive results abound in relating self-concept to adjustment; they have been generally successful with objective personality tests; ambiguous results have been obtained with projected personality tests, while other attempts have included examining the relationship with word association tests, social behaviour and psychotherapy.

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(20). Lowe, C.M. (1961) "The self concept: fact or artifact." Psychological Bulletin 58, 325-336.

In achieving construct validity, its proof is often part of the actual study and frequently produces only a further step along the continuum of instrument validation. A combinatiom of the above validation procedures is necessary to support claims of construct validity. As Cronbach (1970, P.142) (21) warns construct validity is established only through a long continual interplay between observation, reasoning and imagination, and the process is really the same as that by which scientific theories are developed.

RELIABILITY OF SELF-CONCEPT MEASURES.

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A perfectly reliable measurement is one that is completely accurate or free from error. Thus, providing that the same instrument is applied to the same individual, in the same way, and the trait being measured has itself not changed, then the same value should be obtained. In practice this is rarely achieved. There are many problems that arise in connection with reliability and with the several meanings of the term itself.

Reliability has several operational conceptions depending on how it is estimated from the raw data. Guilford and Fruchter (1973, P. 397). (22) define the reliability of any set of measurements as the proportion of their variance that is true variance; in other words, the ratio of true variance to observed variance. The reliability of an instrument should always be considered as applying to a certain population, under certain conditions. This point was also raised by Shreve (1973) (23), who in evaluating four well known self-concept tests, considered that most of the test writers offered less than satisfactory information regarding samples and procedures used in estimating the reliability. This criticism is also pertinent to self-concept research in general, where all too often the only data presented is the actual reliability coefficient.

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(21). Cronbach, L.J. (1970) Essentials of Psychological Testing Harper and Row: New York.

(22). Guilford, J.P. and Fruchter, B. (1973) Fundamental Statistics in Psychology and Education. McGraw - Hill; Kogakusha.

(23). Shreve, E.E. (1973) "A critical analysis and evaluation of evidence regarding the reliability and validity of four selected measures of self-concept" Unpublished Ph.D. Thesis. Univer. of Southern California.

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Simply described, the reliability coefficient for a test is a kind of self correlation. There are many procedures for evaluating reliability, but the three main categories are

1. internal cosistency
2. alternate forms
3. test - retest.

Cronbach (1947) (24) labels the second category as the coefficient of equivalence, and the third one as the coefficient of stability. Shreve, in considering the self-concept scales mentioned above, points out that although most test writers adequately describe the stability of results, they fail to offer internal consistency estimates of reliability. This would be expected, if the measure was assessing general homogeneous traits.

Some general theoretical considerations concerning the three main methods of measuring reliability and its relevance to self theory will be discussed. Its dependence upon the work of Guilford and Fruchter is acknowledged. Methodologically, the sources of true and error variances are important and as these may vary from method to method it is prudent to assess the three different methods.

In the test - retest form the determinants that contribute to error variance include temporary conditions. Thus the subject's state of health, or emotional condition could vary. The administration procedure from test to retest must be standardised. However, probably the most important change occurs in the subjects themselves. Skills and knowledge acquired during the first administration, and in the interval between administrations, will have their effect upon the second performance. The longer the time interval between test and retest the greater the error contributions.

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(24) Cronbach,L.J.(1947) "Test 'reliability': Its meaning and determination. Psychometrika 12, 1-6.

In the alternate-forms method, the error variance is chiefly due to the change in content of the test. The time interval between administering the two forms could also add to the error variance. The sources of error that would affect all methods of reliability estimates are fluctuations of attention, and motivation from item to item.

An important consideration for self-concept measurement appears to be whether the instrument is homogeneous or heterogeneous. If the instrument purports to measure the same traits equally well in all its parts, then this is a matter of internal consistency. The degree of reliability should then be assessed using an index of internal consistency *eg* split halves. However, if the test is heterogeneous, the reliability index needed is that of the retest variety. In self-concept studies more consideration should be given to the type of reliability indice used when the instrument is purporting to measure a general or a factor specific area of the self-concept. In conclusion to this section a reiteration is made for more explicit details concerning the sample together with the procedure used in determining the type of reliability indice for a particular self-concept measure.

SUMMARY.

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The construction of a research study is obviously very complex. Self-concept studies and measuring devices vary considerably in their effectiveness. It could be argued that if a self-concept measure can only give an approximation of how an individual construes himself it is still a worthwhile objective. Despite their acknowledged limitations many measures used in self-concept studies have provided valuable insights into how people and children make sense of and organise their own behaviour in varying environments.

This does not mean that self-concept measures should be accepted

as they are. Their limitations should be recognised. This recognition will lead to a desire to improve the techniques and thus valid data will slowly accumulate in self theory.

The summary of Crowne and Stephen (1961) (25) concerning the studies which they have reviewed, unfortunately still seems pertinent today. They state that the failure of self acceptance research can be traced in part, to the neglect of several crucial psychometric and methodological principles. These include unsupported assumptions of equivalence of assessment procedures, the absence of any clear construct tests in accordance with principles of representative sampling and the lack of consideration given to the social desirability of self report tests.

Although the private nature of the self makes it a difficult construct to measure, many attempts have been made. Often these studies are limited in the comparison of their findings due to inadequate definitions of the self-concept. In general, poor research designs devalue the results of some studies, and the effect of experimeter and environmental variables are often not sufficiently controlled. To establish any self-concept scale, detailed reporting of validity and reliability data is essential.

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(25). Crowne, D.P. and Stephens, M.W. (1961) "Self-acceptance and self-evaluative behavior: a critique of methodology." Psychological Bulletin 58, 104-121.

CHAPTER EIGHT. SELF-CONCEPT ASSESSMENT TECHNIQUES.

HISTORICAL INTRODUCTION.

The concept of self emerged at the turn of the century, but this early theorising was followed by a decline in the interest of the self. The stress on observable and measurable behaviour advocated by J.B. Watson encouraged this decline. However, as Diggory (1966) (1) explains in his comprehensive review of self theories, very little of the literature on the self during those early years described experiments or contained references to experimental psychology. Thus those psychologists who did advocate the importance of the self weakened their position by their failure to provide rigorous experimentation. The fault then for this neglect of self theory could not be blamed entirely on the behaviouristic psychologists.

With the reawakening of interest in the self, particularly in the 1940's, attempts were made to measure the construct. Raimy (1948) (2) was the first to attempt to measure the self-concept which he did in counseling interviews. This work was closely followed by Carl Rogers whose theory of personality is based upon the concept of the self as the main explanatory construct. Rogers focused both theoretical and empirical attention on the nature of the self. Among the techniques used by Rogers were the recording of interviews, the Q sort and T.A.T. techniques.

Sheerer (1949) (3) made one of the first attempts at attitude measurement in relation to the self-concept. Using statements

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(1). Diggory, J.C. (1966) Self Evaluation: Concepts and Studies. John Wiley and Son, New York.
(2). Raimy, V.G. (1948) "Self-reference in counseling interviews" J. Consult. Psychol. 12, 153-163.
(3). Sheerer, E.T. (1949) "An analysis of the relationships between acceptance of and respect for self and acceptance of and respect for others." J. Consult. and Clinical Psychol. 13, 176-180.

that were either relevant for attitude to self or to other people Sheerer formed a 101 item rating scale. He found a definite and substantial correlation between attitudes of acceptance and respect for the self and attitudes of acceptance and respect for others.

This work was used as the basis of the scales devised by Phillips (1951) (4) and by Berger (1952) (5). The latter attempted to test the relationship found by Sheerer using larger numbers and more varied samples. Berger developed a group instrument for measuring self acceptance and acceptance of others based, in part, upon the 101 traits and finally produced a 64 item scale that purported to measure self and other acceptance.

A more complicated rating scale, and the first published one, was that developed by Bills (1958) (6). This was an attempt to measure the phenomenological self which had then received wide theoretical formulations from Lecky, Snygg and Combs, and Rogers. The scale comprised 49 traits measured on a 1 - 5 scale and each item was used with three different instructions. The subject grades the scale on each item as to how well it describes himself, how acceptant he is of his first or self rating and finally how he would like to be similar to it. Thus a self-ideal discrepancy score could be evaluated from the ratings.

Brownfain (1952) (7) considered that every evaluative statement a person makes about himself may be thought of as a sample of his self-concept, from which may be inferred certain properties of that self-concept. His study of the stability of the self-concept provides another early adaptation of the rating scale. He measured

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(4). Phillips, E.L. (1951) "Attitudes toward self and others: a brief questionnaire report." J. Consult. Psychol. 15, 79-81.
(5). Berger, E.M. (1952) "The relation between expressed acceptance of self and expressed acceptance of others." J. Abnormal and Soc. Psychol. 47, 778-782.
(6). Bills, R.E. (1958) Manual for the Index of Adjustment and Values. Auburn: Alabama Polytechnic.
(7). Brownfain, J.J. (1952) "Stability of the self concept as a dimension of personality" J. Abnormal and Soc. Psychol. 47, 597-606.

the stability of the self-concept in terms of the discrepancy between two definitions of the self: the self as it is "positively" conceived and the self as it is "negatively" conceived. The operational measure of stability was the difference between these positive and negative self rating on each item, summed over all the items of the inventory without regard to sign.

A different approach to self measurement than that described by the rating procedures was devised by Gough (1960) (8). He used an adjective check list, and the self acceptance of the subject was inferred from the ratio of "favourable" self descriptive statements to the total number of self descriptive statements made by the subject. A further use of the adjective check list was made by La Forge and Suczek (1955) (9), in which self-concept was measured by the discrepancy between self and ideal ratings.

An early but different theoretical approach to self measurement was the Q sort technique, which was developed by Stephenson (1953) (10). He considered that one's inner experiences can be translated by this method into behaviour. This particular method has been used widely since then, and will be discussed again later in the chapter. According to Butler and Haigh (1954, P.57) (11) although the Q technique was developed by Stephenson, to the best of their knowledge the first studies using Q sort to assess counseling were those by Hartley (1951) in an unpublished Ph.D. dissertation and by Jeffrey (1949) in an unpublished analysis of data collected by Haigh.

From this period on there was a growth in the kind of technique used to assess self-concept. This brief historical introduction gives an indication of the early attempts to quantify the self-

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(8). Gough, H.G. (1960) "The Adjective Check List as a personality assessment research technique" Psychological Reports 6, 107-122.
(9). La Forge, R. and Suczek, R.F. (1955) "The interpersonal dimension of personality: 111 An interpersonal check list." J. of Personality. 24, 94-112.
(10). Stephenson, W. (1953) The Study of Behavior: Q Technique and its Methodology. Chicago University Press.
(11). Butler, J.M. and Haigh, G.V. (1954) "Changes in the relation between self concepts and ideal concepts consequent upon client centred counseling" In: Rogers, C.R. and Dymond, R.F. (Eds.) Psychotherapy and Personality Change Chapter 4, Chicago: University of Chicago Press.

concept. It also suggests the kind of criticism that was later to be aimed at self-concept measurement; in particular, the method of selecting items from patients undergoing therapy and then using these as test items for unrelated groups of normal subjects.

SELF-CONCEPT ASSESSMENT USING SELF REPORTS.

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It would be impossible to consider all the various forms of self-concept instruments since there has been a marked tendency for researchers to devise instruments of their own. Hence a very simple classification of techniques will be used in this chapter, that of two broad categories. The first category will include the use of self reports in assessing self-concept and this will be discussed in this and the next subsection of the chapter. The second category will briefly examine other techniques.

The consideration of self reports will be more detailed than the second category because the empirical section of the present study will use a self report technique for assessing self-concepts. This detailed discussion of self reports will provide a basis for the data collection used in this study.

The rationale for self reports is based on the assumption that the self can be inferred from the individual's own responses, which can be given in a variety of forms. Some writers, eg Rogers, have taken the position that self reports are valuable sources of information about the individual. The phenomenological world of the individual, the world as it is perceived by himself, contains the data necessary to understand and predict behaviour. Allport (1953) (12) has written that the individual has the right to be believed when he reports his feelings about himself. He considers that if we want to know how people feel, what they experience and what they remember, then why not ask them? It would be naive, however, to

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(12). Allport, G.W. (1953) "The Trend in Motivational Theory." American J. of Orthopsychiat. 23, 107-119.

expect an individual's responses to be always valid, and this point will be discussed later in the section. The basic forms of self report techniques are indicated below and a more detailed criticism of them is reserved to the next subsection.

The rating scale is a very common self report technique. In this form the subject ranks himself on a series of statements concerning his self feelings. Their main vulnerability is in terms of error of central tendency, response set and acquiescence. A somewhat similar test is the Adjective Check List which consists of a list of trait descriptive adjectives, which the subject has to check along a continuum of responses as characteristic of himself. It is possible that children may relate more effectively to complete thoughts rather than isolated words and evidence for this is suggested by Soares and Soares (1973) (13).

The open ended questionnaire is another self report technique in which the subject is asked, or in which he writes, about himself. This is often difficult to score and to analyse without introducing experimenter' bias. It has been used extensively, and one of its main advocates has been Jersild. This method, when coupled with factor analysis, can often be used to establish factors that could be used to devise further scales. The less able, especially among children, would find this procedure difficult since they would not articulate their responses sufficiently well.

Another self report technique is the Q sort, which was mentioned in the previous subsection. This has been said to be not so much an instrument as a method. A large number of self referent statements are sorted by the subject into a series of piles along a continuum of appropriateness of self description. These usually range from "most like me" to "least like me". The instrument forces the subject to produce a quasi-normal distribution of the items. Each item in the self sort may be assigned a value. Few of these Q sorts

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(13). Soares, L.M. and Soares, A.T. (1973) Tests of self concept as measures of personality change. Address presented at the American Educ. Research Association Meeting: New Orleans: Louisiana.

have been used more than once. Anastasi (1976, P.601) (14) considers that the Q sort yields ipsative rather than normative data since the individual tells us which he considers are his strong and weak traits, but not how strong he believes himself to be in comparison with another person or some outside norm. Pervin (1970, P.290) (15) states that the Q sort does not represent a completely phenomenological report since the subjects must use statements provided by the experimeter instead of his own, and must sort the statements into prescribed piles rather than according to a distribution that would make sense to him.

Pictorial forms of self-concept assessment are now increasing in number. Although charges of ambiguity and lack of standardisation in administration and scoring have been levelled against this technique, research workers such as Long etal (1967, 1968)(16), Ziller etal (1969) (17) and Bolea etal (1971) (18) have used this form of assessment and have claimed success with it. They agree that data is still being gathered, but suggest that it shows initial promise of being a simple but useful method.

The method used by Bolea consisted of a set of 50 cartoon-like picture cards developed to reflect Jersild's (1952) (19) categories of the self-concept. The subject sorts the cards into three piles

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(14). Anastasi, A. (1976) Psychological Testing. Collier Macmillan Pub., London, 4th Edition.
(15). Pervin, L.A. (1970) Personality. Theory, Assessment and Research. John Wiley and Son.
(16). Long, B.H., Henderson, E.H. and Ziller, R.C. (1967) "Developmental changes in the self concept during middle childhood" Merrill-Palmer Quarterly. 13, 201-215.
(16). Long, B.H., Ziller, R.C. and Henderson, E.H. (1968) "Developmental changes in the self concept during adolescence" School Review 76, 210-230.
(17). Ziller, R.C., Hagey, J., Smith, M.D. and Long, B.H. (1969) "Self esteem: a self social construct" J. Consult. and Clinical Psychology. 33, 84-95.
(18). Bolea, A.S., Felker, D.W. and Barnes, M.D. (1971) "A pictorial self concept scale for children in K - 4." J. Ed. Measurement. 8, 223-224.
(19). Jersild, A.T. (1952) In Search of Self. Bureau of Publications, Teachers College, Columbia University, New York.

according to whether the figure designated by a star on his shirt is "like him", "sometimes like him" or "not like him at all". The pictorial methods of Long and Ziller requires the subject to select and arrange symbols to represent himself in relation to salient other people. This assumes that individuals can communicate various aspects of their self social schemata symbolically, and that certain symbolic patterns have common meanings eg physical distance in the test represents psychological distance within the child's mind.

The reasons for attempting pictorial forms of self -concept assessment are worthwhile. The use of verbal self reports are limited by the vocabularies of the children, which in turn restricts the range of responses and reduces the extent of the assessment. Furthermore, since the ability to express their thoughts varies widely among children, and increases with age, it could interfere with the valid measurement of the self-concept.

The final form of the self report to be reported here, and the one which will be used in Part 2 of this study, is the semantic differential. It was developed by Osgood etal (1957) (20) and usually involves 7 categories along a continuum which separates a pair of dichotomous traits. It is possible that this asks the subjects to make finer distinctions about himself which he may be unable to do. Another possible disadvantage is the middleground of the scale which he can use if he does not want to respond on a particular item. It does, however, provide both direction and intensity of response on a continuum between two opposite adjectives.

This technique is producing an ever increasing number of studies. One of the earliest ones was Borislow (1962) (21). Instead of presenting the instrument in a tabular form McNamara (1971) (22)

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(20). Osgood, C.E., Suci, C.J. and Tannenbaum, P.H. (1957) The Measurement of Meaning Urbana: University of Illinois Press.
(21). Borislow, B. (1962) "Self evaluation and academic achievement" J. Counsel. Psychol. 9, 246-254.
(22). McNamara, D. (1971) "The Wheel: an alternative instrument for collecting semantic type data" Brit. J. Educ. Psychol. 41, 1, 99-101.

suggests the "wheel" as an alternative shape. He considers this to be a novel way of presenting large numbers of items without response set effecting the results. So far as I am aware no published studies have used this method except for McNamara, who adapted it from the work of Thomas etal (1967) (23). I would expect grave problems with this method of presentation, especially with young children. However, it does seem an interesting alternative for older subjects.

GENERAL CRITICISMS OF THE SELF REPORT.

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The possible limitations of specific instruments using self reports have already been mentioned. This section will contain some general and more theoretical criticisms of self-concept assessment based upon self reports. Although many theorists believe in the use of self reports, they are aware of the fact that responses may be influenced by a variety of contaminating factors. As Jourard (1964) (24) as stated "You can know me truly only if I let you, only if I want you to know me."

The major critics of the self report consider that while the self-concept is what an individual believes about himself, the self report is only what he is willing and able to disclose to someone else. Combs etal (1963) (25) have strenuously argued that most of the studies purporting to explore the self-concept are not studies of self-concept at all, but rather studies of the self report. The two terms are not considered to be synonymous, although what a person says of himself will be affected by his self-concept. Thus they conclude that the self report will rarely, if ever, be identical with the self-concept.

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(23). Thomas, R.G., Smith, J.M. and Spence, P.A. (1967) "Wheeling and dealing - a new approach to the collection of attitude and motivational data by the use of a semantic differential scale" J. of the Market Research Society. 10, 78-86.

(24). Jourard, S.M. (1964) The Transparent Self New York: Van Nostrand.

(25). Combs, A.W., Soper, D.W. and Courson, C.C. (1963) "The measurement of self-concept and self-report." Educ. and Psychol. Measurement 23, 493-500.

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Inaccuracies in a person's self report are due to a variety of reasons and these have been stated very clearly by Combs and Snygg (1959, P.440cf) (26). It is worthwhile to summarise these reasons below:

1. the subject may not, in actual fact, be aware of his phenomenal field with any degree of clarity
2. the person may lack adequate language to express his self ideas.
3. the effect of social desirability may colour his responses
4. the subject may not be co-operative for any number of reasons
5. the degree of freedom from threat and personal adequacy felt by the person could alter his responses
6. since he is reporting on his most personal qualities this may bring about subtle changes

However, in spite of these difficulties many researchers still use the self report as a basis for inferring the self-concept. They are aware of the limitations and seek to reduce their influence. Some like Sarbin and Rosenberg (1955) (27) point out that the usefulness of the self report is in obtaining meaningful self attributes quickly and with the minimum of effort. Others like Merrens (1975) (28) are even more committed. In a study that examined the effectiveness of self ratings in comparison to a personality inventory, he concluded that when one considers that the rating scale approach is economical, lacks deception, contains no unusual items, has face validity and involves minimal ethical questions then the amount of information yield becomes even more remarkable.

One final point in this section is the difficulty associated with those self reports that use two part indices i.e. the tester obtains

(26). Combs, A.W. and Snygg, D. (1959) Individual Behaviour. New York; Harper and Row.
(27). Sarbin, T.R. and Rosenberg, M. (1955) "Contributions to role taking theory IV: a method for obtaining a quatitative estimate of self." J. Soc. Psychol. 42, 71-81.
(28). Merrens, M.R. (1975) "The relationship between personality inventory scores and self-ratings." J. Social Psychology 97, 139-140.

discrepancies between actual self rating and ideal self rating on each of several items and sums these discrepancies to give a single score. Serious doubts are raised about this technique by Judd and Smith (1974) (29). They factor analysed semantic differential responses of 445 students on factor composition of self-concept and ideal-self concept. Their analyses produced two factors on self-concept and three factors on ideal-self concept. These factors differed in scale composition. Their results questions whether these discrepancy measures are valid unless analysis of both concepts indicate a compatible factor structure.

OTHER METHODS OF ASSESSING SELF-CONCEPT.

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If a person is motivated primarily by his concept of self then according to theorists such as Hilgard (1949) (30) the self-concept should be inferrable from long term observation of behaviour. This type of observational technique ranges from that of the structured interview to the categorising of behaviours by a clinically trained observer. The measuring of the perception of one or more significant others would also form part of this technique. Observers could be passive and detached or could take the view that observation is a matter of commitment and the observer should be looking for reasons for the behaviour rather than at the behaviour itself.

An extension of this would be to use a combination of methods to infer self-concept. Projective techniques, in which the individual's self related responses are interpreted by trained clinicians, would be an example of this method. However, this assessment of unreported dimensions of the self-concept is controversial. Those who have devised unconscious measures of the self consider that

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(29). Judd, L.R. and Smith, C.B. (1974) "Discrepancy score validity in self- and ideal self-concept measurement" J. Counseling Psychol. 21, 156-158.

(30). Hilgard, E.R. (1949) "Human motives and the concept of self" American Psychologist 4, 374-382.

conscious measures produce a distorted picture of the self.

Investigators using projected techniques claim that they have some distinct strengths in terms of a less threatening atmosphere for the subject, a greater reduction of embarrassment and defensiveness, and the smaller likelihood of responses being faked. Underlying the use of unconscious measures is the belief that other measures, no matter how accurately used, would never provide a total picture of the self-concept.

If a test claims to measure an unconscious self-concept how can it be proved that the subject actually holds that view, especially when he is supposed to be unaware of it? One may have grounds, albeit tenuous ones, for assuming the projective measure is assessing an unconscious self attitude, if these inferences differ from those obtained by a self report. A study along these lines was conducted by Hoey (1973) (31). He used 148 under graduates and gave them a self report self-concept scale and the repression-sensitization (R-S) scale of Byrne which evaluates the subjects defensive styles. The projected self-concept scale consisted of heroes of T.A.T. stories, which were rated blindly on a 7 point scale by the experimenter and a psychology graduate.

The resulting projective self-concepts did not correlate significantly with the reported self-concept scale or with Byrne's R-S scale. Apparently, the projected self-concept scale was able to circumvent defensive styles and yield information about self-concepts that is not equivalent to reported self-concepts. Nevertheless, it still remains to be proved that the information from the projected scale is valid.

This last point is essential and to this doubt can be added the arguments of those who oppose unconscious measures. They claim these measures lack objectivity, and that trained testers are required. Furthermore, they produce a restricted interpretation of scores.

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(31). Hoey, H.P. (1973) "The projected self-concept scale" J. Clinical Psychology 29, 380-381.

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In conclusion to this section Perkins and Shannon (1965) (32) administered three different techniques for determining self-concepts to 78 sixth grade boys. They gave a self report inventory, a projective technique and a pictorial identification test. They found all three were positively related and concluded that techniques other than verbal self reports may be suitable for assessing self perceptions. The projective technique in this study, however, was not attempting to measure unconscious self attributes as in the previous study.

SUMMARY.

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This chapter has traced the attempts at operationalising the various theoretical definitions of the self-concept. Many self-concept techniques have been devised but none have achieved total acceptance. A major proportion of these self-concept measures have been based upon self report assessments. These have their limitations, but many researchers would rather try and overcome these defects than reject the mass of information gained by their use. They are relatively easy to use, can be given to large groups and they are susceptible to validity and reliability tests. Other forms of assessment, such as observation, can be used but this requires a trained experimenter. It appears to me that self report techniques will be used in assessing self-concepts for some time to come, and is the method chosen to measure the children's self-concepts in this present study.

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(32). Perkins, C.W. and Shannon, D.T. (1965) "Three techniques for observing self perceptions in pre-adolescent boys." J. Personality and Social Psychol. 2, 443-447.

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PART TWO.

****

AN EMPIRICAL STUDY OF THE SELF-CONCEPTS OF A GROUP OF PRIMARY AGED CHILDREN.

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INTRODUCTION.

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This part of the present study is concerned with the construction of a self-concept measure that will assess specific self-concepts of a sample of primary aged children. A factor analytical method will be used to construct the self-concept measure. The detailed construction of the instrument will be reported in the next five chapters.

The effects of age and sex on children's self-concept will then be assessed. The self-concept data will then be analysed with respect to the following selected variables:

1. Social Class
2. Peer Status
3. Ability Grouping
4. Relative Ability Grouping
5. Siblings
6. Family Position

Attempts to measure self-concepts have been the object of much criticism. The general criticisms of self-concept techniques have been detailed in Chapter 7. In addition to these, the following points need careful consideration and attention will be given to them in the following chapters.

The items comprising the scale, Wylie suggests, may not have relevance to the subjects for which they were intended. Furthermore, many tests pay little or no attention to reliability and validity criteria. She recommends (1968, P.784) (1) a slow accumulation of information regarding reliability and construct validity at the item level before any clear meaning can be attached to a particular measure.

Shreve (1973) (2) further recommends that in validity studies

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(1). Wylie, R.C. (1968) "The present status of self theory" In: Borgatta, E.F. and Lambert, W.W. Handbook on Personality. Ch.12. Chicago: Rand McNally.

(2). Shreve, E.E. (1973) "A critical analysis and evaluation of evidence regarding the reliability and validity of four selected measures of self-concept" Unpublished Ph.D. Thesis. Univer. of Southern California.

greater attention should be directed toward complete and accurate descriptions of performance criteria, an explanation of sample selection procedures and conditions of testing, and a comprehensible reporting of statistical procedures. He also highlights the lack of satisfactory evidence regarding internal consistency estimates of reliability.

Further additions to this list of criticisms are supplied by Drude (1972) (3). He considers item content and item selection to be of great importance. Drude argues that most test items lack specific situational referrants, allowing the subjects to define for themselves which situation an item can be applied to.

It is hoped that the following construction of a self-concept scale will conform to the worthy proposals mentioned above.

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(3). Drude, K.P. (1972) "A study of the construct validity of self concept measures." Unpub. Ph.D. Thesis. University of Illinois at Urbana - Champaign.

CHAPTER NINE. COLLECTION OF A POOL OF SCALE ITEMS.

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PROPOSED SELF SCALES.

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It was decided to concentrate on those specific self-concepts that appear to be most pertinent to junior school children. The five areas chosen are

1. Academic Self
2. Family Self
3. Social Self
4. Physical Self
5. Emotional Self

The choice of these five specific self-concept areas could introduce experimenter bias, but they appear to cover those constructs that are significant to the age range 7 to 11 year olds. They contain not only constructs concerning children's physical and personal selves, but those accruing from significant others in a child's life, i.e. family, peers and school.

Although most writers have recognised a diversity of selves within each individual, most have disagreed on the terminology or labels by which individuals identify those selves. For this study, the Academic Self is seen as the attitudes a child has concerning his academic ability and his satisfaction with his school life. The Family Self reflects the child's feelings of worth and value as a family member. It is his perception of self in reference to his closest and first circle of significant others. A child's Social Self is his judgement of himself as seen in relation to his peers. It is a set of attitudes a child has, which reflects his perception of the worth of his social interaction with his peers. The Physical

Self describes the feelings a child has pertaining to his physical appearance and abilities. It encompasses his state of health and satisfaction with his body's skills. The child's Emotional Self refers to his sense of feelings concerning his personal worth and reflects his evaluation of his personality traits.

These areas do seem to reasonably represent the general self attitudes of young children. However, since the significance of these areas are based upon my intuition, there was no expectation at this early stage in the research, that they would necessarily reflect empirical reality.

INITIAL COLLECTION OF A POOL OF ITEMS.

****

A group of 25 fourth year children were used in the initial collection of a pool of items for the proposed five self-concept scales. This was intended only as a preliminary attempt and not as the main collection of pool items. It was designed to explore the children's perceptions of what their parents, friends and their school liked and disliked about them. It was considered that these significant others may be useful in supplying items for three of the proposed five scales.

The children were asked to write down what they thought their parents, friends and school liked and disliked about them. The anonymous scripts were analysed for adjectives that indicated agreeable and disagreeable traits. The comments were categorised as shown overleaf; traits mentioned only once were eliminated.

Results of what friends, school and parents liked about them are listed overleaf:

****

FRIENDS.		SCHOOL.		PARENTS.	
Funny, enjoys a joke	9	Helpful	6	Helpful	13
Helpful	4	Clever	5	Polite	2
Plays with them	4	Hardworker	3		
Good at games/P.E.	3	Friendly	3		
Kind	2	Well behaved	3		
Polite	2	Kind	2		
		P.E.	2		
		Funny	2		

Results of what friends, school and parents disliked about them are shown below:

FRIENDS.		SCHOOL.		PARENTS.	
Fighting	5	Fighting	4	Fighting	3
Bossy	2	Cheeky	3	Cheeky	3
Boaster	2	Misbehaviour	3	Naughty	3
Physique	2	Handwriting	2	Poor Behaviour	2
				Untidy	2

This collection was not particularly useful. The results for "qualities that family, school and friends liked about them" showed many overlapping areas eg helpfulness, kindness. Furthermore, in the parents' section, little mention was made of constructs other than "helpful", which is too general. The results for "qualities that friends, school and parents dislike about them" is dominated by behavioural traits and once again these overlapped with one another. For this small sample of 25 children the only two traits that readily emerged were "helpfulness" and "good behaviour".

The over-riding criticism of this method of collection must be that the children were not guided sufficiently well into considering specific situational referrants. It was decided that this method of data collection was nebulous and too open-ended to afford any worthwhile contribution towards the specific scale items.

MAIN COLLECTION OF POOL ITEMS.

****

A different group of fourth year children were used in the next attempt to develop a pool of items. This group comprised 49 children. A change in technique was considered necessary to gather a suitable item pool. To underpin the theoretical basis for this collection of items consideration was given to the personal construct theory of Kelly (1955) (1).

This is not a self theory as such but is concerned with the individual and how the individual construes his environment. Kelly suggests a technique called the repertory grid by which the construct systems of people can be examined. To aid the collection of items from this sample, a very simplified and modified use is made of the underlying idea of the repertory grid.

The procedure of item generation will be described only for one scale i.e. academic self, but the method was the same for all five scales. All responses were anonymous. The children were asked to think of - but not name - a child who did very well at school. They were also asked to think of, but not name, a child who did not do well at school. The children were then asked why, in their opinion, the first child did well and the second child did not. Thus, asking the children to construe other children and their academic prowess, helps to reveal something meaningful about their own construct system.

The method was easily understood by the children and was administered to the two classes by myself. The children wrote down their responses. The procedure was repeated for the other four scales.

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(1). Kelly, G.A. (1955) The Psychology of Personal Constructs. New York: Norton.

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The scripts were analysed for constructs, and the traits were listed in rank order depending on their frequency. The tables showing the frequency of each construct are listed in Appendix 1. Any construct mentioned only once was eliminated.

On the basis of the results shown in Appendix 1 the following constructs were selected for the item pool.

ACADEMIC SELF ITEMS.

Clever
Pays attention
Hard worker
Neat worker
Fast worker
Enjoys school work
Likes school
Well behaved
Good at schoolwork

SOCIAL SELF ITEMS.

Plays with me
Falls out of friends easily
Fighting
Bully
Gets on well with me
Generous
Bossy
Friendly
Lots of children to talk to
Kind
Calls for me

FAMILY SELF ITEMS.

Kind
Generous
Nice
Gets on well with each other
Clean home
Friendly with others
Tells children off
Good behaviour
Happy
Helpful

PHYSICAL SELF ITEMS.

Well dressed
Nice face
Good looking
Tidy hair
Clean
Good at games
Fast runner
Tries at sport

PERSONAL SELF ITEMS.

Truthful
Cheats
Trustworthy
Friendly
Kind

ITEMS FROM PREVIOUS RESEARCH
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A pool of items from previous research, both published and unpublished, was collected. This pool was then condensed to those constructs that appeared applicable to the purposes of this present study. The item list is included in Appendix 2.

It can be seen that many of the constructs collected from the group of 49 children are similar to those included in Appendix 2. Some constructs that were not generated from the children, but did appear to be pertinent to the proposed scales, were considered for scale inclusion. Although the appendix is fairly lengthy, the number of extra constructs abstracted from it was small. It was considered desirable to restrict the scale length to 10 or 12 items each.

No constructs were added from previous research to the proposed academic scale, and only one construct was added to the social self scale i.e. "annoys other children".

Three constructs were added to the proposed physical self scale. These were

a. strong for my age
b. never have any energy
c. always seem to be ill

For the family self scale, two constructs were added:

a. easy to live with
b. no one pays attention to what I say at home

It was in the proposed personal self scale that most additions were made:

a. never lose my temper
b. never worry
c. always do as I am told
d. often wish I were someone else

This completes the collection of an item pool for the proposed five self-concept scales. The construction of these self-concept scales is described in the next chapter.

CHAPTER TEN. CONSTRUCTION OF THE SELF-CONCEPT SCALES. VERSION 1.

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CONSTRUCTION.

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The items collected in the previous chapter were arranged into five subscales. A modified form of a semantic differential technique was constructed in which bi-polar statements were separated by seven crosses. The children had to circle the cross that conformed to their perception of themselves between the two extreme poles. This initial form of the subscales included 56 bi-polar statements.

The five subscales are shown below. However, this was not the form in which the children completed them. The individual items of these 5 scales were randomised and numbered 1 to 56. Further random ordering then determined whether positive or negative constructs were presented first. The randomised form that the children completed is shown in Appendix 3. The separate forms of the proposed scales are shown below simply to show the items as gathered together in the collection of the item pool.

ACADEMIC SELF SCALE.

1.	I like school work.	x x x x x x x	I hate school work.
2.	I always listen to the teacher in class.	x x x x x x x	I never listen to the teacher in class.
3.	My school is nice.	x x x x x x x	I hate my school.
4.	My school work is always neat.	x x x x x x x	My school work is always untidy.
5.	I am no good at school work.	x x x x x x x	I am very good at school work.
6.	I always finish my school work quickly.	x x x x x x x	I am slow in my school work.
7.	I think I am clever.	x x x x x x x	I am not clever at all.
8.	In class I am not well behaved.	x x x x x x x	In class I am always well behaved.

ACADEMIC SELF SCALE continued.

9. I never work hard in class.	x x x x x x x	I always work hard in class.
10. I never try my best in class.	x x x x x x x	I always try my best in class.

PHYSICAL SELF SCALE.

1. I am strong for my age.	x x x x x x x	I am not strong for my age.
2. My hair is always tidy.	x x x x x x x	My hair is never tidy.
3. I never have any energy.	x x x x x x x	I always have plenty of energy.
4. I don't care if I look dirty.	x x x x x x x	I always like to be clean.
5. I am not nice looking.	x x x x x x x	I am nice looking.
6. I always seem to be ill.	x x x x x x x	I am never ill.
7. I am never well dressed.	x x x x x x x	I am always well dressed.
8. I am a very good runner.	x x x x x x x	I can't run well at all.
9. I don't like my face.	x x x x x x x	I like my face.
10. I'm no good at P.E. and games.	x x x x x x x	I am very good at P.E. and games.
11. I like the way I look.	x x x x x x x	I don't like the way I look.
12. I never try at sport.	x x x x x x x	I always try my best at sport.

EMOTIONAL SELF SCALE.

1. I often do what I know to be wrong.	x x x x x x x	I always try to do what is right.
2. I never lose my temper.	x x x x x x x	I often lose my temper.
3. I never worry about anything.	x x x x x x x	I always seem to worry.

EMOTIONAL SELF SCALE continued.

4.	I always cheat.	x x x x x x x	I never cheat.
5.	I am a happy person.	x x x x x x x	I am often unhappy.
6.	I am helpful to others.	x x x x x x x	I rarely bother to help anyone.
7.	I can never be trusted.	x x x x x x x	I can always be trusted.
8.	I am a shy child.	x x x x x x x	I am never shy.
9.	I always tell the truth.	x x x x x x x	I never tell the truth.
10.	I am not kind to others.	x x x x x x x	I am always kind to others.
11.	I always try to do what I am told.	x x x x x x x	I never do as I am told.
12.	I often wish I were someone else.	x x x x x x x	I never wish I were someone else.

FAMILY SELF SCALE.

1.	I am not easy to live with.	x x x x x x x	I am easy to live with.
2.	I am a big help at home.	x x x x x x x	I never help at home.
3.	I like to share everything with my family.	x x x x x x x	I never share things with my family.
4.	My family makes me happy.	x x x x x x x	My family makes me sad.
5.	My parents tell other children off.	x x x x x x x	My parents never tell other children off.
6.	My parents dislike my friends.	x x x x x x x	My parents like my friends.
7.	At home we are always kind to one another.	x x x x x x x	At home we are often unkind to one another.
8.	I often bring my friends into our house.	x x x x x x x	I can't bring my friends into our house.

****

FAMILY SELF SCALE continued.

9. My home is cleaner than most.	x x x x x x x	My home is never clean.
10. At home we are always the best of friends.	x x x x x x x	We are always falling out with one another at home.
11. No one pays any attention to what I say at home.	x x x x x x x	Everyone pays attention to me at home.
12. I am never well behaved at home.	x x x x x x x	I am always well behaved at home.

SOCIAL SELF SCALE.

1. I have plenty of children to play with.	x x x x x x x	Often no one will play with me.
2. Children often talk to me in the playground.	x x x x x x x	No one talks to me in the playground.
3. There is no one I get on well with.	x x x x x x x	I get on well with lots of children.
4. I am never bossy with other children.	x x x x x x x	I am always bossy.
5. I annoy other children.	x x x x x x x	I never annoy other children.
6. I often bully other children.	x x x x x x x	I never bully children.
7. I try to be friendly to everyone in class.	x x x x x x x	I am not friendly at all to anyone.
8. I am always fighting.	x x x x x x x	I never fight with other children.
9. I never fall out of friends with other children.	x x x x x x x	I am always falling out of friends.
10. I always share things with other children.	x x x x x x x	I never share things with other children.

ADMINISTRATION OF THE SCALES.

A group of 59 children from second and third year classes in a junior school took part in the initial application of the scales. The school was in a well established area and was semi-open plan in design. The children were told that I was interested in how children thought about themselves, and that all answers would be strictly confidential - hence they did not have to give their names.

Practice items were included in which the children were told that any of the intermediate points could be used. The administration of the scales in each class took approximately 50 minutes, and the tester read out each set of bi-polar statements to help the slower readers. I did not administer the scales, but they were given by a colleague in another school who was fully conversant with the technique. He reported that the children appeared to cope easily with the form of the scale.

ANALYSIS AND RESULTS.

Each construct was rated from 1 to 7. High scores denoted a high self-concept rating. The direction of scoring was clear due to the method of collection of the item pool. It was obvious, from the children who contributed to the collection of items, which traits were favourable or unfavourable.

An item analysis was then carried out by correlating scores on each item from the proposed scale with the total score for that scale. The Pearson product moment coefficients obtained are shown in the following tables. Only the initial part of each bi-polar statement is shown for brevity. Tables showing the intra-scale correlations appear in Appendix 4.

TABLE 1.

Product moment correlation coefficients between scores on each item and the total academic self-concept scale score (N = 59)

I never work hard in class	.65
My school is nice	.63
I like school work	.60
In class I am well behaved	.60
I'm no good at school work	.59
I always listen to the teacher	.56
My school work is always neat	.54
I finish my work quickly	.54
I think I am clever	.53
I never try my best in class	.49

$r \geqslant .40$, $p < .001$.

TABLE 2.

Product moment correlation coefficients between scores on each item and the total social self-concept scale score. (N = 59)

I have plenty of children to play with	.61
I always share things with other children	.59
I often bully other children	.55
I never fall out of friends with others	.53
I am always fighting	.49
I annoy other children	.45
Children often talk to me in the playground	.39
There is no one I get on well with	.34
I am never bossy with other children	.32
I try to be friendly with everyone	.17

$r \geqslant .40$, $p < .001$

$r \geqslant .33$, $p < .01$

$r \geqslant .24$, $p < .05$

TABLE 3.

Product moment correlation coefficients between scores on each item and the total family self-concept score (N = 59)

At home we are always kind to one another	.65
I am never well behaved at home	.61
No one pays attention to what I say at home	.60
My family makes me happy	.57
My parents dislike my friends	.57
At home we are the best of friends	.56
I like to share everything with my family	.55
My home is cleaner than most	.49
I am a big help at home	.42
I often bring friends into our house	.29
I am not easy to live with	.28
My parents tell other children off	.27

$r \geqslant .40$, $p < .001$
$r \geqslant .33$, $p < .01$
$r \geqslant .24$, $p < .05$

TABLE 4.

Product moment correlation coefficients between scores on each item and the total physical self-concept score. N = 59.

My hair is always tidy	.70
I don't like my face	.60
I'm no good at P.E. and games	.58
I like the way I look	.55
I am not nice looking	.52
I am never well dressed	.50
I never have any energy	.45
I am strong for my age	.32
I never try at sport	.30

TABLE 4 continued.

I don't care if I look dirty	.28
I am a good runner	.27
I always seem to be ill	.22

$r \geqslant .40, \quad p < .001$
$r \geqslant .33, \quad p < .01$
$r \geqslant .24, \quad p < .05$

TABLE 5

Product moment correlation coefficients between scores on each item and the total emotional self-concept score (N = 59)

I always tell the truth	.65
I am a happy person	.62
I always cheat	.61
I never lose my temper	.50
I am helpful to others	.48
I often do what I know to be wrong	.45
I often wish I were someone else	.44
I can never be trusted	.42
I am a shy child	.39
I am not kind to others	.36
I always try to do what I am told	.36
I never worry about anything	.29

$r \geqslant .40, \quad p < .001$
$r \geqslant .33, \quad p < .01$
$r \geqslant .24, \quad p < .05$

DISCUSSION.
****

A varimax factor analysis was performed on the matrix of inter-correlations for all items. However, it was felt that a sample number of 59 children with 56 variables was not sufficient to make

it reliable and its value was of limited use. Too many factors were identified; all made up of a low percentage of the variance.

It was also felt that the scale in its present form was too long. A reduction of the number of items could be done on the basis of the item analysis. The reduced scale would then be given to a larger sample and those results subjected to factor analysis.

CHAPTER ELEVEN. CONSTRUCTION OF THE SELF-CONCEPT SCALES VERSION 2.

****

CONSTRUCTION.

****

In an attempt to reduce the large number of items in each of the proposed subscales some of the constructs were eliminated. The criteria for inclusion in this version of the scale were:

a) a high product moment correlation coefficient between the score of the item and the total score for that proposed subscale.
b) a significance level of at least .001 for the above product moment correlation coefficients.
c) a maximum of seven constructs per subscale
d) a face validity assumption as to the inclusion of a particular item in a proposed subscale.

Using these criteria, the following constructs were selected for each proposed subscale.

ACADEMIC SELF.

1. hard worker
2. nice school
3. enjoys school work
4. well behaved in class
5. good at school work
6. listens to the teacher.

SOCIAL SELF.

1. children to play with
2. share with other children
3. bully
4. out of friends
5. always fighting
6. annoys other children.

****

FAMILY SELF.

1. kind to one another
2. well behaved at home
3. attention to me
4. parents like my friends
5. at home we are the best of friends
6. family makes me happy
7. share everything with my family

PHYSICAL SELF.

1. tidy hair
2. like my face
3. good at P.E.
4. satisfaction with the way I look
5. not nice looking
6. well dressed
7. no energy

EMOTIONAL SELF.

1. happy person
2. bad tempered
3. helpful
4. wish I were someone else
5. gets upset easily
6. never gets into a "mood"

For this last subscale of emotional self two new constructs were added i.e. "gets upset easily" and "never gets into a mood". Three constructs were discarded, although they produced high and significant product moment correlational coefficients in the item analysis. These were

1. always tell the truth
2. never cheat
3. often do what I know is wrong

It appeared that these constructs were of a moral rather than an emotional kind. The form of the scale as it now stood appears in Appendix 5.

SAMPLE AND ADMINISTRATION.
****

The 32 constructs were arranged as bi-polar statements. These were randomised and numbered. Further random ordering decided whether the positive or negative statements were presented first. As before, the bi-polar statements were separated by seven crosses. The children had to select the cross nearest to the statement that conformed to their conception of themselves.

I was unable to give this version of the self-concept scales because of difficulties due to leave of absence. However, the tester who administered the first version of the scales was available to administer this version. He is a post graduate and a teacher with many years' experience. There was, of course, a discussion about the testing procedure prior to the administration of the scales.

The sample consisted of all the children in the four year age groups of a junior school. The school is a well established and very stable one regarding staffing, and the children's intelligence was normally distributed. The Head was fully consulted about the technique, and his help is greatly appreciated.

FACTOR ANALYSIS AND RESULTS.
****

A small percentage of the scripts were discarded. These were mainly due to one or two items not being answered. A sample of 100 children returned completed scripts. This comprised 56 boys and 44 girls. The children ranged in age from 7 years to 11 years old. The sample included 20 first year, 27 second year, 29 third year and 24 fourth year junior school children. The scales were scored by myself as before.

The scores were factor analysed for the sample of 100 children and 32 variables. The form used was one of principal factoring with iterations followed by oblique rotation. The results are shown below. Table 6 lists the factors in terms of the size of eigenvalues

and percentage of variance. Table 7 shows the factor intercorrelations and Table 8 provides a factor by factor list of their item loadings. For brevity only the main idea of the construct is written down. The full item intercorrelation matrix can be found in Appendix 6.

FACTOR ANALYSIS OF N = 100, V = 32.

TABLE 6.

Factor.	Eigenvalue.	Percentage of Variance.
1	5.36	31.7
2	2.17	12.8
3	1.78	10.5
4	1.52	9.0
5	1.30	7.7
6	1.02	6.0
7	0.93	5.5
8	0.78	4.6
9	0.72	4.3
10	0.70	4.2
11	0.62	3.7

****

TABLE 7.

FACTOR CORRELATIONS.

Factors	1	2	3	4	5	6	7	8	9	10	11
1											
2	.09										
3	.18	-.06									
4	-.14	-.03	.02								
5	-.13	-.01	-.07	.02							
6	-.01	.10	.12	-.12							
7	-.38	-.03	-.14	.07	.09	.00					
8	-.28	-.17	-.18	-.04	-.04	.18					
9	-.19	.06	-.26	.12	.14	.11	.07	.16			
10	.22	-.03	.04	.05	.00	.03	-.25	-.08	-.05		
11	-.16	-.14	-.21	.07	.13	-.08	.01	.13	.14	.06	

TABLE 8.

Factor by factor list of the item loadings.

Factor 1.	My school is nice	.74
	Always work hard	.68
	Like school work	.66
	Listen to teacher	.58
	Well behaved in class	.57
	Never fight	.43
	Kind to one another at home	.40
	Well dressed	.38
	Bully others	.38
	Well behaved at home	.36
	Helpful	.32
	Share with others	.31
Factor 2.	Good at school work	.71
	Plenty of energy	.55
	Helpful	.45
	Good at P.E.	.41
Factor 3.	Never out of friends at home	.59
	Annoy other children	.54
	Well behaved at home	.51
	Bully	.47
	Always fighting	.44
	Happy person	.34
	Listen to teacher	.31
Factor 4.	Gets upset easily	.58
	Well behaved in class.	-.57
	Wish I were someone else	.45
	Never fall out of friends	.31

Factor 5.	Like the way I look	-.80
----------	I'm nice looking	-.63
	Happy person	-.37
	At home everyone pays attention to me	-.32
Factor 6.	Plenty of children to play with	.59
----------	Good at P.E.	.54
	Kind to one another at home	-.39
	At home everyone pays attention to me	.38
Factor 7.	Always share with others	-.93
----------	At home we are kind to one another	-.52
	Work hard in class	-.45
	Listen to teacher	-.39
	Never fight	-.39
	Well behaved at home	-.39
	Share everything with family	-.34
Factor 8.	Like my face	-.85
----------	Well dressed	-.55
	Well behaved in class	-.37
	Parents like my friends	-.34
	Bully others	-.33
	Well behaved at home	-.33
	Tidy hair	-.32
	Kind to one another at home	-.31
	Work hard in class	-.31
	Like school work	-.31

Factor 9.	Moody	-.88
———	Well behaved at home	-.38
	Parents like my friends	-.38
	Tidy hair	-.30
Factor 10.	Family makes me happy	.79
———	Share everything with my family	.37
Factor 11.	Bad tempered	-.74
———	Well behaved in class	-.48
	Always fighting	-.46
	Bully others	-.42
	Happy person	-.37
	Annoys other children	-.36

DISCUSSION.
****

The results obtained in this oblique factor analysis show clearly that the pool of constructs used did not conform to the expected subscales. Recent literature reviewed on page 105 of the present study indicates the necessity of factor analysis of proposed self-concept scales, and criticises those past self-concept scales that did not use the technique.

In some small measure the results obtained in this analysis underlines this necessity. The assumed subscales used items collected from a sample of children and bore remarkable resemblance to those constructs found in previously used self-concept scales. The factor analysis has shown that the face validity offered by my self-concept scales, and possibly many published self-concept scales, is highly questionable.

Thus, it was at this stage of the construction of the scales that it was decided to alter slightly the direction of the original strategy of measuring five areas of the child's self-concept. It was now aimed to supplement these five areas of academic, social, family, physical and emotional selves by using two more "areas" as described in the next chapter.

****

A further revision of the self-concept scales was thus carried out. It evolved from the analysis so far and its expansion is explained in Chapter 12.

CHAPTER TWELVE. CONSTRUCTION OF THE SELF-CONCEPT SCALE. VERSION 3.

****

CONSTRUCTION.

****

The first step in this stage was the elimination of some of the unnecessary constructs used in the last version of the self-concept scale. The reasons for discarding the items were due to one, or a combination of, the following criteria shown below:

a) low correlation between the variable and the factor on which it loads
b) variables loading only on factors that have a very low percentage of variance
c) variables that load moderately highly on more than one factor, thus indicating that the variable measures more than one theoretical dimension.

This procedure considerably reduced the number of items that had previously been used in the construction of the self-concept scales. Some 19 constructs were eliminated.

The next stage was to examine the summary of the factor structure and to consider the dimensions that appeared to be measured. Consideration was given to the first six factors only, since they represented a reasonably satisfactory percentage of the variance. The highest-loading variables on each factor were to be expanded with items that apparently would measure the same trait.

Consideration of TABLE 8, page 147, indicated that factors 1 and 2 apparently were concerned with areas based upon school life. The first factor was defined by a general attitude towards the school. As such, no self-assessment of academic competence was made; merely

their attitudes concerning school and school work. Bearing in mind the above criteria for elimination of variables, three constructs were retained. These were "hard worker", "nice school" and "likes school work". Two more constructs were added by myself i.e. "glad/sorry to leave this school" and "enjoy/hate all school lessons".

The highest loading on factor 2 suggested that the scale related to some form of academic competence, and thus, since the other items were to be eliminated, this factor was expanded to implicate academic competence more strongly. In the early stages of the scale construction, when the items for academic self were being gathered from the sample of 49 children, any specific academic subjects that were mentioned were coded under the general heading of "good/no good at school work". Since this item scored highly on factor 2, further consideration was given to the earlier coding of the main collection of items.

It appeared that the specific subjects under the general heading of school work included maths, sums, english, reading and art. Because they received frequent mention, and because they are specific, the subjects "sums" and "reading" were chosen to expand the factor. In my experience a child in the junior school finds it easier to assess himself in "sums" rather than the more comprehensive "maths". Similarly, a child is aware of his competence in reading at an early age.

To expand this factor further, three more constructs were included that pertained to the grading of school work, i.e. position in class; results of school, class or weekly tests, and the marking of their class work by their teachers.

Factor 3 tended to load on constructs that suggested a behavioural, aggressively toned trait. Although these constructs originally were assumed to be part of the social self subscale, it was evident that they were measuring a behavioural trait. The constructs of "fighting", "bully" and "annoys others" were expanded by the inclusion of three more items supplied by myself. These were "gets angry easily", argues with everyone" and "badly behaved". The latter one is a composite of various items in the factor analysis with a behavioural

aspect. However, instead of it being specific to the classroom or the home it was left in as a general item.

The social dimension was expanded from the highest scoring construct on factor 6, i.e. "plenty of children to play with". The items added were "popular", "plenty of friends", "makes friends easily" and "children like me".

Factor 4 was then considered. The construct "well behaved in class" was eliminated because of its factorial complexity, while the item "never fall out of friends" had only a small correlation with the factor. The remaining two constructs were used as a basis for expansion. Four more constructs were added. These were "cheerful", "cries easily", "gloomy", and finally, "always smiling".

There remains only the previous attempt to construct a scale for a family self-concept. I concluded that the constructs produced from the initial sample of children (N = 49), in the gathering of constructs for the pool of items, tended to be far too general. The ideas seemed to spread over into other areas. The constructs of friendship, kindness and generosity were too general to apply simply to the family. The results of the factor analysis shown in TABLE 8 indicated this clearly. Therefore, at this stage, it was decided to take an entirely different direction in the measurement of the family self.

I was interested in how young children saw their parents' role with regard to their exercise of control, discipline or authority. Would there be any significant difference between how children saw their parents in this role for variables such as sex, age or social class? With this in mind a specific subscale, to try to assess how the child interpreted his parents' actions with regard to control and discipline, was attempted. The items included were "pick on me", "criticise me", "angry with me", "treat me like a baby", "smack me unfairly" and "listen to me".

It may be pertinent at this point to offer some justification for the inclusion of constructs devised by myself or expressed in previous

research. It seems reasonable that when constructs are provided, subjects will exhibit some convergence in their interpretation of them. This is especially so for children from the same range of ethnic and material backgrounds. Furthermore, even a casual examination of past research studies would readily show that many constructs are common to them. It is almost impossible to state categorically that one construct comes from a given source. Thus, the use of some of these constructs would appear to have some value.

ADMINISTRATION.
****

The 38 constructs derived from the foregoing analysis were arranged into bi-polar statements. As before, these were randomised and numbered. Positive and negative statements were ordered randomly as well. Seven crosses separated the bi-polar statements. The form of this scale is shown in Appendix 7.

I was unable to obtain leave of absence and could not administer this version of the self-concept scale. Another headteacher, to whom I am very grateful, offered the services of his school. We had a lengthy discussion about the administration of the scales. It was agreed that the class teachers could administer the scales themselves; so detailed notes were supplied to ensure a standard procedure. Practice statements were supplied and examples given of the method of selection. The teachers had to stress that the scales were confidential and hence no names were required. In addition, they also informed their pupils that neither the teachers nor the head would look at the responses. I received no adverse comments from the staff regarding the administration procedure.

The sample comprised four complete classes, one from each year, in a large junior school. The school was situated in an old building and the classes were arranged along traditional lines. The locality in which the school was situated was good, and the children came from stable backgrounds. The school enjoyed a high reputation within its L.E.A.

FACTOR ANALYSIS AND RESULTS.

A small percentage of the completed scripts were eliminated due to one or two mistakes. These were either incompleted scripts or those in which some items had been marked twice. This latter point was noted and mention would be made in any subsequent administrations. A sample of 110 children returned correctly completed scripts. The 60 girls and 50 boys ranged in age from 7 years to 11 years old and comprised 25 first year, 23 second year, 31 third year and 31 fourth year children. The scales were scored by myself.

The scores for the 38 variables and the sample of 110 were factor analysed. The method used was that of principal factoring with iterations followed by an oblique rotation. The results of the analysis are shown in Tables 9 to 11. Appendix 8 shows the full intercorrelation matrix between items.

FACTOR ANALYSIS OF N = 110, V = 38

TABLE 9.

FACTOR.	EIGENVALUE.	PERCENTAGE OF VARIANCE.
1	7.70	32.4
2	3.03	12.7
3	2.42	10.2
4	1.98	8.3
5	1.70	7.1
6	1.53	6.4
7	1.25	5.2
8	1.05	4.4
9	0.90	3.8
10	0.81	3.4
11	0.78	3.3
12	0.63	2.6

TABLE 10.

Factor Correlations.

Factors	1	2	3	4	5	6	7	8	9	10	11	12
1												
2	.04											
3	.01	.01										
4	.18	.12	.18									
5	.20	.03	.02	.13								
6	-.11	-.27	-.04	-.12	-.08							
7	.19	.08	.13	.09	.02	-.12						
8	.11	.10	.13	.14	.02	-.21	.14					
9	-.01	.05	.08	.03	.08	-.17	.19	.12				
10	-.18	-.14	-.00	-.12	-.11	.20	-.16	-.11	-.10			
11	.22	.03	.08	.01	.18	-.06	.10	.02	.03	-.06		
12	.31	.06	.14	.19	.18	-.15	.14	.08	.12	-.13	.09	

TABLE 11

SUMMARY OF THE FACTOR BY FACTOR LIST OF THE ITEM LOADINGS.

FACTOR 1.	Sums right	.79
	Good marks for work	.72
	Near bottom of class	.63
	No good at school work	.56
	Do well in tests	.55
	Cheerful	.48
	Always smiling	.40
	Work hard in class	.35
	No problems in reading	.32
	Parents angry with me	.32
	Make friends easily	.31
	Badly behaved	.30
FACTOR 2.	School is nice	.85
	Glad to leave this school	.81
	Like school work	.81
	Enjoy all school lessons	.68
	Badly behaved	.39
	Annoy other children	.31
FACTOR 3.	Children think I'm ugly	.64
	Children like me	.56
	Nice looking	.48
	Always smiling	.45
	Fighting	.45
	Do well in school tests	-.40
	Parents criticise me	.34
	Cheerful	.32
	Near bottom of class	-.32

FACTOR 4.	Parents pick on me	.79
	Parents listen to me	.71
	Parents smack me unfairly	.68
	Parents angry with me	.54
	Parents criticise me	.51
	Get angry easily	.40
	Always smiling	.36
	Bully	.33
	Make friends easily	.32
FACTOR 5.	Plenty of friends	.86
	Plenty of children to play with me	.83
	Make friends easily	.57
	No good at school work	.42
	Good marks for school work	.31
FACTOR 6.	Always arguing	-.81
	Gets angry easily	-.72
	Annoys other children	-.70
	Badly behaved	-.60
	Always fighting	-.54
	Always smiling	-.44
	Bully	-.41
	Gloomy	-.36
	No good at school work	-.34
FACTOR 7.	Like the way I look	.82
	Nice looking	.67
	Other children think I'm ugly	.49
	Cheerful	.39
	Change how I look	.33

FACTOR 8.	Wish I were someone else	.73
	Change how I look	.61
	Always smiling	.41
	Gloomy	.36
	Get angry easily	.31
	Annoy other children	.31
	Make friends easily	.31
FACTOR 9.	Popular	.81
	Gloomy	.40
	Nice looking	.38
	Children like me	.33
FACTOR 10.	Work hard in class	-.80
	Near bottom of the class	-.52
	Good marks for school work	-.44
	Badly behaved	-.43
	Parents criticising me	-.38
	No good at school work	-.34
	Enjoys all school lessons	-.33
	Bully	-.33
FACTOR 11.	Cries easily	.78
	Gets upset easily	.51
	No good at school work	.39
	Children like me	.35
FACTOR 12.	Gets upset easily	.65
	Good marks for school work	.59
	Make friends easily	.57
	No reading problems	.49
	Children like me	.45
	Do well in school tests	.39
	No good at school work	.35
	Gloomy	.31
	Get angry easily	.30

DISCUSSION.

****

As can be seen, the results of this factor analysis were generally more encouraging than the previous analyses. Clustering of the variables on the various main factors do appear, in general, to follow those that were suggested as subscales. However, there were exceptions. It was decided at this stage to use this version of the test as a basis for the self-concept scales to be used with the main sample. But before this could be attempted, the last version of the scale with V = 38 needed to be examined in the light of the last factor analysis and altered accordingly. The changes made to these scales and the reasons for them are described in Chapter 13.

CHAPTER THIRTEEN. CONSTRUCTION OF THE SELF-CONCEPT SCALES. FINAL VERSION.

****

CONSTRUCTION.

****

The elimination of some of the constructs used in the previous version of the self-concept scale was based upon one, or several, of the following criteria:

a) low correlation between the variable and the factor on which it loads
b) variables that load only on factors of very low percentage of variance
c) variables with factor non-specificity
d) variables not having any significant correlation with any factor

Some variables, however, were discarded for other reasons as explained below. In all 13 constructs failed to satisfy the above criteria and were eliminated from the final version of the scale.

Consideration of factor 1 in Table 11 shows it to be more highly loaded with constructs suggesting academic competence. These variables are shown below:

1.	sums right	.79
2.	good marks	.72
3.	top of class	.63
4.	good at schoolwork	.56
5.	do well in class tests	.55

Item 4 had moderately high loadings on factors 5 and 6 and thus it was not included in the final version of the scale. It was considered that possibly item 2 would cover it.

Factor 2 suggests a general school self-concept, without any

indication of academic competence. The first four items were thus retained as part of the proposed subscale:

1.	nice school	.85
2.	glad to leave this school	.81
3.	like school work	.81
4.	enjoy all lessons	.68

Factor 3 is not as clear a dimension as the previous two factors. Some of the constructs loading on this factor would not be retained on the basis of the above criteria for elimination. However, it is noteworthy that all the items that load on this factor (except for "others think I'm ugly") load on another factor to a higher degree. This could suggest a general factor, one that may give an indication of a more general self-concept.

1.	children think I'm ugly	.64
2.	children like me	.56
3.	always fighting	.45
4.	do well in class tests	-.40

Factor 4 includes those items that reflect the children's attitudes towards their parents' authoritarian role. The first five items are

1.	parents pick on me	.79
2.	parents listen to me	.71
3.	parents smack me unfairly	.68
4.	parents always angry with me	.54
5.	parents always criticise me	.51

Item 5 was dropped from the study at this stage for two reasons. It loaded moderately highly on factor 3 as well as Factor 4. Furthermore young children would understand item 1 better, and the two items would appear to be similar.

Factor 5 would appear to measure a social self attitude. The first

three variables were retained.

1.	children to play with	-.83
2.	many friends	.81
3.	make friends easily	.57

A behavioural self assessment is suggested by Factor 6. The first five items were retained for the final version of the self-concept scale:

1.	always arguing	-.81
2.	gets angry easily	-.72
3.	annoys others	-.70
4.	badly behaved	-.60
5.	always fighting	-.56

The final factor to be considered was factor 7 and this appeared to measure a form of physical acceptance. Two items were retained

1.	like the way I look	.82
2.	others think I'm ugly	.49

There were reservations in retaining a factor containing only two items, but since these were the only items remaining for the proposed physical self scale they were retained.

It was at this stage that attempts to develop a subscale that would measure a child's emotional self were abandoned. All the items that had been piloted for this subscale gave only moderate correlations with the various factors. Furthermore, many of the items loaded on several factors. Throughout the development of all the scales this had been a constant problem. It appeared that the constructs used were difficult for children to consider in isolation. Since the aim was to develop relatively specific subscales, the search for a satisfactory measure of an emotional self was abandoned.

At this stage, 23 items had been retained giving a measure of 6 subscales. A separate factor analysis was ran on a subgroup of the sample. This was used as a check to determine whether the factor structure emerging so far appeared to have validity across the age range. Only the results for the third and fourth year children (N = 62) were used for this analysis.

The analysis is not reported here in any depth except to state that similar results were found to those obtained for the whole sample. It was apparent on breaking down the factor structure of this smaller analysis, on the basis of the criteria on page 161, that 21 items resulted which were identical to the 23 retained from the full analysis. Only two items from the subanalysis loaded differently i.e. "work hard in class" had a correlation of .60 on the academic self factor, and "popular" had a correlation of .70 on the physical attractiveness scale. Due to their high loadings on this subgroup analysis it was decided to retain them for the final version of the scale bringing the total now to 25 items.

Finally, one extra item was added, i.e. "I am a friendly sort of person". This was an attempt to expand the items in factor 5. Thus, the whole scale now numbered 26 items giving a measure of 6 sub-scales i.e. academic self, general school self, behavioural self, family self, physical self and social self. The final form of the scale is included in Appendix 9.

ADMINISTRATION.
****

The 26 constructs were arranged into bi-polar statements, randomised as described previously. The administration of these scales will be explained more fully in Chapter 14. A concise version will suffice here. I administered the self-concept scale of 26 items to all the children in four junior schools within the same L.E.A. Each construct was rated on a scale 1 to 7 and the scores for each child tabulated.

FACTOR ANALYSIS AND RESULTS.

****

A total of 18 scripts were not used from the total sample. The majority of these scripts, i.e. 12, were from the first year age range. The most common reason for the script being void was that certain items had not been completed. Some 742 children completed the scales correctly. The sample was made up as shown in Table 12 below:

TABLE 12.

SAMPLE.	BOYS.	GIRLS.
First Year.	98	76
Second Year.	116	87
Third Year.	74	82
Fourth Year.	110	99
Total	398	344

The scores for the 26 variables and the sample of 742 children were factor analysed. The method, as before, was one of principal factoring with iterations followed by direct oblimin rotation. The results are shown below. The variables do not appear in the order as they did on the test paper, but have been grouped into the "expected" subscales for quicker and easier analysis. Table 13 shows the six significant factors in order of size; Table 14 presents the intercorrelations between these factors and Table 15 lists the item loadings on each factor. The full intercorrelation matrix appears in Appendix 10.

FACTOR ANALYSIS OF N = 742, V = 26.

TABLE 13

FACTOR	EIGENVALUE	PERCENTAGE OF VARIANCE
1	5.10	47.1
2	2.17	20.1
3	1.23	11.4
4	1.14	10.5
5	0.79	7.3
6	0.40	3.7

TABLE 14

Factor Correlations.

Factor	1	2	3	4	5	6
1						
2	0.32					
3	-0.29	-0.21				
4	0.19	0.07	-0.37			
5	0.35	0.30	-0.16	0.24		
6	0.26	0.07	-0.36	0.44	0.16	

TABLE 15.

Summary of The factor by factor list of item loadings.

		FACTORS.					
	ITEMS.	1	2	3	4	5	6
1	Sums right			-.65			
2	Bottom of class			-.61	.32		
3	Do well in tests			-.59			
4	Work hard in class	.44	.42	-.52			
5	Good marks	.31		-.75			
6	Like school work		.75				
7	Enjoy lessons		.67				
8	Glad to leave school		.70				
9	Nice school		.75				
10	Parents smack me unfairly					.56	
11	Parents listen to me					.51	
12	Parents pick on me					.69	
13	Parents angry with me					.60	
14	Always fighting	.64					
15	Badly behaved	.57		-.36			
16	Annoy other children	.58				.33	
17	Argue with everyone	.61					
18	Never get angry	.53					
19	Children to play with				.64		
20	Popular				.48		.36
21	Many friends				.74		
22	Makes friends easily				.61		
23	Children like me			-.35	.69		.49
24	Friendly person	.44					.32
25	Like way I look						.57
26	Children think I'm ugly				.40		.54

DISCUSSION.

****

From this factor analysis it is apparent that the clustering of the variables around the various factors is in line with that expected after the previous factor analysis with N = 110. However, on the evidence of this larger sample, some items can still be omitted. These are:

Item 4, "works hard in class". This has some factor overlap and does not load very highly on any one factor.

Item 20, "popular". During the administration of the scales I realised that the meaning of this word held difficulty for many younger children. This impression was confirmed when I had the scores for each year factor analysed separately. The total sample produced a correlation of .48 between the item "popular" and factor 4 as indicated in Table 15. However, using only a fourth year sample this correlation was as high as .68. Using only the first year sample this item did not load on any factor at all. The implication is that younger children did not understand the word, and thus the item was omitted.

Items 24, 25, 26, "friendly sort of person", "like the way I look", and "children think I'm ugly". These were rejected for a combination of reasons, i.e. low loadings on factor 6, factor non-specificity and the low percentage of variance of factor 6.

Since the factor score coefficients for each child were to be used as input scores in the main data analysis the previous factor analysis was re-run with some modification. For this re-run the scale contained 21 items as explained above. Table 16 shows the five significant factors in order of size; Table 17 presents the intercorrelations between these factors and Table 18 indicates the clustering of items around the expected factors. The order of some of the factors, however, changed. The full intercorrelation matrix is shown in Appendix 11.

Factor Analysis of N = 742, V = 21.

TABLE 16.

Factor	Eigenvalue	Percentage of Variance
1	4.19	46.1
2	1.91	21.0
3	1.18	13.0
4	1.07	11.8
5	0.74	8.1

TABLE 17.

Factor Correlations.

Factor	1	2	3	4	5
1					
2	0.20				
3	-0.31	-0.09			
4	-0.28	-0.39	0.18		
5	0.39	0.28	-0.32	-0.18	

TABLE 18.

Summary of the factor by factor list of item loadings.

		FACTORS				
	I T E M S .	1	2	3	4	5
1	Sums right.				-.66	
2	Bottom of class.		.32		-.62	
3	Do well in tests.				-.60	
4	Good marks.	.31			-.72	
5	Like school work.			-.75		
6	Enjoy lessons.			-.69		
7	Glad to leave school.			-.71		
8	Nice school.			-.74		
9	Parents smack me unfairly.					.56
10	Parents listen to me.					.51
11	Parents pick on me.					.68
12	Parents angry with me.					.60
13	Always fighting.	.62				
14	Badly behaved.	.58			-.34	.34
15	Annoy other children.	.59				
16	Argue with everyone.	.62				
17	Never get angry.	.53				
18	Children to play with.		.64			
19	Many friends.		.74			
20	Make friends easily.		.63			
21	Children like me.		.67		-.36	

Thus for the purpose of the main data analysis the self-concept scale comprised 21 items sampling five subscales as indicated below:

1. Behavioural Self
   a. always fighting
   b. arguing with others
   c. badly behaved
   d. annoys others
   e. gets angry easily

2. Social Self
   a. many friends
   b. children like me
   c. plenty to play with
   d. make friends easily

3. General School Self
   a. school is nice
   b. like school work
   c. glad to leave this school
   d. enjoy all school lessons

4. Academic Self
   a. good marks
   b. sums right
   c. top of class
   d. do well in tests

5. Parental Self
   a. picking on me
   b. angry with me
   c. smack me unfairly
   d. listen to me

VALIDITY AND RELIABILITY.

****

In the introduction to Part 2, page 124 Wylie is quoted as advocating a slow accumulation of information regarding reliability and construct validity at the item level before any clear meaning is attached to a particular scale. Shreve recommends greater attention towards complete and accurate descriptions of performance criteria, sampling procedures, conditions of testing and a comprehensive reporting of statistical procedure. In the last five chapters it is hoped that at least some of these worthy proposals have been given close attention.

The validity of the self-concept scale has been tested by a factorial design. But the evidence for validity is not shown by simply achieving one criterion. Further evidence of validity, it is hoped, will be provided in the data analysis section of the study.

The reliability of the scale was tested using a test-retest reliability coefficient. The children used in the sample were taken from one school which formed part of the main sample. Four classes were retested two weeks after they had completed the first administration. The four classes comprised one from each year group in the school. The use of children from only one school, instead of a cross section of the four schools who took part in the main sample, could lead to bias in the results; especially since this school was academically the poorest of the four in the sample.

I gave the self-concept scale to the four classes and scored the responses. The global scores of 79 children were compared using Pearson's product moment correlation. To examine the stability of the subscales, correlation coefficients were also computered for each of the five subscales. The results of the test-retest correlations are shown in Table 19.

TABLE 19.

SCALE	CORRELATION COEFFICIENT	SIGNIFICANCE
Academic	.74	$p < .001$
General School	.70	$p < .001$
Family	.71	$p < .001$
Behavioural	.60	$p < .001$
Social	.64	$p < .001$
Total Score	.76	$p < .001$

CONCLUSION.

****

A lengthy process of item construction has been undertaken to produce the final self-concept scale of 21 items measuring five subscales of academic, general school, behavioural, parental and social selves. The original aim to devise five subscales measuring academic, parental, social, emotional and physical selves has required considerable modification. The physical and emotional subscales have been finally omitted, and the social self scale was expanded to include a behavioural self scale, and the original academic self scale expanded to include a general school self.

It may be useful at this stage to redefine the five subscales that have emerged. The academic self is seen as the attitudes a child has concerning his academic competence. The general school self appears to be a measure of the child's satisfaction with his school life, with no reference to his academic competence. The family self scale reflects the child's perception of his parents' role as authoritarian figures. The social self is a measure of the child's perception of his worth in his social interaction with his peers. The behavioural self is a measure of the child's appreciation of his aggressive traits in his general behaviour towards his peers. The total score obtained by summing the scores on the five subscales is a measure of the child's general or global self-concept.

CHAPTER FOURTEEN. DATA COLLECTION.

********** **********

SAMPLE.

****

The sample comprised all the children in the junior departments of four primary schools situated within the same Local Education Authority. The schools that took part in the study were from differing environments. This was deliberate, so as to ensure a reasonable spread of social class and academic ability.

School A was a junior school with approximately 250 children. It is situated in a social priority area and is predominately working class, with many parents out of work. Academically, the attainment of its pupils was the lowest of the four schools involved in the sample. It is a very old school dating back to 1890.

School B was a primary school with approximately 180 children in the junior department. It is situated on a housing estate of mainly privately owned houses. The area has been developing in size over the last five or six years. The school is eight years old and is semi-open plan in design. This school had a full range of academic ability, and the parents were from different social classes.

School C was a primary school with approximately 150 children in the junior department. This school was a "twin" in design to School B, but in a much more residential area. The attainment of the children in this school was very high and the parental background in terms of occupation was very good.

School D was a junior school of some 250 children. It is a traditionally designed school, but some parts that have recently been rebuilt are of a semi-open aspect. It is approximately 30 years old. This school had quite a spread in both ability of their children and parental socio-economic backgrounds. The catchment area for this school included children from houses in a highly expensive area, to children from a council estate. In many ways this school provided in one sample the spread that was apparent in the other three schools.

The children used in the sample ranged in age from 7 years old to 11 years old. The data gathered on each child are shown below:

1. English Picture Vocabulary Test Score
2. Self-concept scale score
3. Sociometric score
4. Number of siblings in family
5. Position of birth in family
6. Parental Occupation

ENGLISH PICTURE VOCABULARY TEST.
****

A simple-to-use measure of verbal ability that could be administered to a group and was standardised for the age range of the sample was required. The English Picture Vocabulary Test (E.P.V.T.), Test 2, had been designed to assess levels of listening vocabulary among children of 7.0 to 11.11 years. The manual (Brimer and Dunn 1962) (1) claims that the scores obtained could be more generally interpreted as measures of verbal ability. The E.P.V.T. is functionally independent of reading skill.

This test does not require special training in either administration or scoring. The administration is fairly simple and can be undertaken by any experienced teacher who follows the instructions carefully. The published norms and the reliability of the test were obtained under conditions of teacher administration. The manual states that the E.P.V.T. may be used in any situation in which a measure of verbal ability is required.

ADMINISTRATION.
****

I administered the E.P.V.T. in only one school. In the other three schools I discussed the test, and its administration, with the heads of the schools involved. In two of the schools the

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(1). Brimer, M.A. and Dunn, L.M. (1962) Manual for the English Picture Vocabulary Tests. Education Evaluation Enterprises.

heads gave the tests themselves, while in the third school the class teachers gave the children the tests after a discussion with the head. Full and detailed notes were supplied.

The E.P.V.T. contains 40 test items in a booklet which is preceded by practice items. The test items are arranged in order of increasing difficulty. A page of four pictures together with a spoken word constitutes a test item. The children's task is to identify the picture to which the word refers. I found that the children really enjoyed attempting this test and this view was confirmed by the heads of the other three schools.

All tests were scored by myself. The standardised scores of all children were calculated and listed. The four heads concerned in the study were supplied with a complete list of standardised scores for all the children in their school.

CODING OF RESULTS.

The E.P.V.T. test scores were to be used in three ways. Firstly, the standardised scores would be used as a set of results by themselves.

Secondly, the scores would be used to produce three ability groupings. These ability groups would be based upon the percentile equivalents for the standardised scores. Thus Ability Group 1 contained those children above the 80th percentile, or whose standardised score was above 113. Ability Group 2 contained the average standardised scores, or middle range, from the 40th to the 60th percentile i.e. standardised score range 96 to 104. The children in Ability Group 3 were those who came under the 20th percentile, i.e. whose standardised score was less than 87.

The third use of the E.P.V.T. was to divide the children into three Relative Ability Groups. It was reasoned that since self-concept theory suggests that a child's self attitudes are influenced by his immediate peers, then the child's academic self might be considered in relation to his immediate peers. Thus each class of children was divided, on the basis of the E.P.V.T. scores in that particular class, into three relative ability groups. It

was possible, for instance, that a child whose standardised score was 102 (and who would have been placed in Ability Group 2 as explained above) could find himself in any of the three Relative Ability groups depending on the quality of his class mates. The Relative Ability groups comprised the top 20%, middle 20% and bottom 20% of each class.

MAIN TESTING - AN INTRODUCTION.

****

I spent a week in giving the following scales and questions. The four heads involved in this study were of considerable help. They gave me full co-operation and help in organising the classes into suitably sized groups for the testing. The time taken to administer the following scales varied according to the age of the children. The procedure took approximately 35 minutes for the older children and increased in time as the age of the children decreased. Even for the first year children it was usually completed in some 45 minutes. A total of 24 classes took part in this stage of the testing.

THE SELF-CONCEPT SCALES.

****

The children were given the scales in groups of about 30. The scales administered were those obtained after the final stage of testing out of items. See Appendix 9. The variables numbered 26 although only 21 were used in the analysis of the data.

The scale included in Appendix 9 gave a measure of the child's self-concept in the following areas

1. Behavioural self
2. General school self
3. Academic self
4. Parental self
5. Social self

The form of the scale has already been discussed in Chapters 10 to 13.

ADMINISTRATION.

The procedure for the administration was standardised for each class. I said that I was very interested in what children thought about themselves at different ages, and told them that I was visiting other schools as well as their school. Some time was then spent in gaining rapport with the class, assuring them that all their answers would be strictly confidential. It was stressed that their own teachers and head teachers would not see their answers.

The children were promised that all the sheets would be given a number, with no names mentioned. Since they did not know me they could answer truthfully, in the strictest confidence. It was emphasized that this was different from their usual kind of work because, even though their answers might be different to their friends, they would still be "correct".

Using a blackboard I explained how to rate their answers. The examples chosen were taken from the pool of discarded items. It was essential at this stage for the children to achieve an understanding of the process of answering, and also to enjoy a relaxed atmosphere. To achieve the latter some slightly humorous items were introduced.

It was repeatedly stressed that any of the seven crosses to be circled could be used, and not just the middle or end points. The strength of each cross was carefully and repeatedly examined. I found that in the majority of classes the idea was quickly understood - although the younger the children, the more practice items had to be used.

At this stage the printed scales were given out face downwards. The children were also given a blank sheet of paper to cover up their responses so their peers could not see their confidential answers. On turning the scales the correct way the children were asked to write down their sex and date of birth. The latter was needed, I explained, so that I could compare children of different ages. (Their date of birth was needed to cross reference their answers to their E.P.V.T. score as well.)

Each pair of statements was read out before the children filled in their response. This would ensure that all children finished together; it would help the weaker readers, and would also control the pace of the responses. On completion the children were told to turn over their page for the remainder of the questions.

CODING OF RESULTS.

The results were factor analysed and five factors were retained. These were identified as corresponding to the five proposed subscales. Following this, a printout of the factor scores for each child was obtained. These formed the main data for the analysis of the children's responses to the 5 subscales. The general self-concept score was obtained by summing the responses to the 21 variables.

SOCIOMETRIC MEASUREMENT.
****

The sociometric measure used was that of one criterion with three choices. The criterion was "Who are your best friends in class?" The children were allowed a maximum of three choices, and were not confined to their own sex. However, the choices were, overwhelmingly, for the same sex.

It is recognised that the above technique to determine sociometric status is a simple one. Consideration was given to rating scales, rejection criteria and sociometric measures with more than one criterion. However, the choice to use a one criterion - three choice technique was determined by

a) the time constraint on myself for a quickly administered measure
b) the fact that the raw data would in any respect be degraded by splitting it into 3 groups of High, Average and Low sociometric status.
c) its simplicity to use and ease of understanding
d) the delicate nature of rejection criteria and the rating of other children. This could cause resentment and comment in the groups involved, and antagonism in children, staff and parents

ADMINISTRATION.

Once again the children were assured of complete secrecy. They were asked to write down, up to a maximum of three, their best friends on the back of their self-concept scale form. It was emphasized that they should not point to the friends they were going to choose (That might have evoked a biased reciprocal choice.) This was a fairly straightforward operation except for the younger children where some help was given with spelling.

CODING OF RESULTS.

The choices were unweighted. The order was ignored and the total number of unit valued choices a child received was considered to be a measure of his sociometric status.

The children were then placed into a high, average or low peer status group depending on their sociometric score. Since the classes varied in size, no absolute standard could be used to assign the children. Thus, each class was examined individually to determine the groups. This was relatively clear in the majority of the classes. Where the distribution of scores was such that difficulty was experienced in assigning a child to a particular group then that child was eliminated from the sample. This tended to occur in the average group and approximately 8% of the total sample were not used.

SOCIAL CLASS MEASUREMENT.
****

According to the Classification of Occupations (1970, P.X) (2) since the 1911 Census it has been customary for certain analytical purposes to arrange the large number of groups of the occupational classification into a small number of broad categories called Social Classes as follows

(2). H.M.S.O. (197) Classification of Occupation and Directory of Occupational Titles.

1. Professional Occupations
2. Intermediate Occupations
3. Skilled Occupations
   (N) Non manual
   (M) Manual
4. Partly skilled
5. Unskilled

The identification of Social Class was to be based upon the main parental occupation.

ADMINISTRATION.

The children in each class were asked to write down their father's occupation on the back of the self-concept form. As expected, problems arose in this section particularly with the younger children. Although many of the younger children had a vague idea of their parent's job, or knew where they worked, they were unable to be specific enough. Help was also needed in this section with many of the spellings. The older children were much clearer in their job specification and much more accurate.

CODING OF RESULTS.

To underline these comments, the following percentages of each year supplied jobs that could be accurately identified.

First Year	approximately	60%
Second Year	"	71%
Third Year	"	90%
Fourth Year	"	90%

However, these figures are not due entirely to the lack of knowledge on the part of the children. Occupational titles are not a completely satisfactory guide to occupational classification. The same occupational title may be used to describe workers performing widely different skills. Thus, only those occupational descriptions were used in the classification of social class that were clear and definite. Some assistance was sought in this task by the use of school records,

but this was extremely limited since most of the records contained only the place of employment and not the nature of the employment.

For the purpose of the data analysis it was decided to abridge the five social classes into three groups. Using a sample of 742 children it was not possible to achieve a sufficiently large group for Social Class 1. Thus the amended social classes were:

Social Class 1 comprised Social Classes 1 and 2
Social Class 2 comprised Social Class 3
Social Class 3 comprised Social Class 4 and 5

MEASUREMENT OF FAMILY VARIABLES.
****

It was of some interest for this study to determine the number of siblings in each family and the ordinal position of the child in that family. This was to investigate the effect of family size and birth order upon the child's self-concept.

ADMINISTRATION.

On the same page as the sociometric measure and parental occupation the children were asked to complete the following sentences about their families.

1. I have ——brothers.
2. I have ——sisters.
3. I was born ——in my family.

The children completed these easily. For statement 3 the children were told to enter 1st, 2nd, 3rd etc as the case may be. This needed explanation, and help was given where necessary. Once again this tended to occur with the younger classes.

CODING OF RESULTS.

This section was coded easily, with only some 5% of the sample being omitted. These were mainly due to the answer to one of

the above three statements being left out.

The results were coded into four groups for the number of siblings in the family.

Sibling 1: contained those children who were the only child.
Sibling 2: contained children whose family comprised 2 children.
Sibling 3: contained children whose family comprised 3 children.
Sibling 4: contained children whose family comprised 4 or more children.

The ordinal position of the child in the family was also coded into 4 groups as follows:

Family Position 1 contained the first born children
Family Position 2 contained all the second born children
Family Position 3 contained all the third born children
Family Position 4 contained the fourth or more child in the family.

SUMMARY.
****

Shown below are the various sets of data collected for each child in the total sample of 742.

1. Behaviour Self,	Factor 1 score
2. Social Self,	Factor 2 score
3. General School Self,	Factor 3 score
4. Academic Self,	Factor 4 score
5. Parental Self	Factor 5 score
6. Global Self-Concept,	Possible range 21 to 147
7. Sex,	Coded 1, 2 for boys/girls respectively
8. Age,	Coded 1, 2, 3, 4 for the first, second, third and fourth years respectively.
9. Peer Status,	Coded 1, 2, 3.
10. E.P.V.T. score,	Range 60-140.
11. Ability Group,	Coded 1, 2, 3.
12. Relative Ability Group,	Coded 1, 2, 3.
13. Siblings,	Coded 1, 2, 3, 4.
14. Family Position,	Coded 1, 2, 3, 4.
15. Social Class,	Coded 1, 2, 3.

All missing values were coded 0.

These results completed the data collection stage and the statistical analysis of this data is discussed in the next two chapters.

CHAPTER FIFTEEN. DATA ANALYSIS: AGE AND SEX DIFFERENCES IN THE SELF-CONCEPT SCORES.

****

INTRODUCTION.

****

The data collected, as described in Chapter 14 and summarised on page 182, was analysed using two main procedures. The first method of analysis is described here and the second is detailed in the next chapter.

Since much interest is focused upon the effect of age and sex on the development of the self-concept, this chapter will examine this relationship as found in the present study. The five factor scores and the global self-concept score for each member of the sample of 742 junior school children were subjected to a two way analysis of variance for age and sex. The various results of this analysis are shown and discussed below.

It was decided to present the tables of results of the two way analysis of variance in the main part of the study and not in an appendix. The discussion of these tables is central to the findings of the present study and thus they are included here.

AGE AND SEX DIFFERENCES IN GLOBAL SELF-CONCEPT.

****

TABLE 20 RESULTS OF THE 2 WAY ANOVAR OF GLOBAL SELF-CONCEPT BY SEX, AGE.

SOURCE OF VARIATION	SUM OF SQUARES	D.F.	MEAN SQUARE	F	SIGN OF F
MAIN EFFECTS	18801	4	4700	15.7	0.000
AGE	9216	3	3072	10.3	0.000
SEX	10627	1	10627	35.6	0.000
2 WAY INTERACTIONS	2073	3	691	2.3	0.075
AGE SEX	2073	3	691	2.3	0.075
EXPLAINED	20874	7	2982	10.0	0.000
RESIDUAL	219146	734	299		
TOTAL	240020	741	324		

TABLE 21 MEANS ON GLOBAL SELF-CONCEPT FOR THE GROUPS SHOWN IN THE 2 WAY ANOVAR IN TABLE 20.

	Year Mean	Year N	BOYS		GIRLS	
			MEAN	N	MEAN	N
Age 1	112.1	174	107.6	98	118.0	76
Age 2	107.2	203	103.5	116	112.2	87
Age 3	102.4	156	97.0	74	107.2	82
Age 4	108.8	209	107.7	110	110.1	99

TOTAL N = 742

RESULTS.

There is a marked sex difference in the scores for global self-concept. The obtained F ratio of 35.6 is highly significant at $p < .001$. The global self-concept scores for the girls in this sample were significantly higher than the scores for the boys.

A value of F = 10.3 was also highly significant at $p < .001$ for the effect of age on global self-concept. For both sexes, the youngest children in the sample have the highest global self-concept scores. There is then a decline in the mean value of the global self-concept score for each sex in the second year, and this is followed by the lowest value being obtained in the third year group. There is a rise, for both sexes, in global self-concept score in the fourth and final year of the junior school sample. For the boys, this rise produces the same value as that obtained for the first year boys. The girls, although a slight rise is apparent, produce a less marked increase which is still lower than the scores obtained by the first and second year girls.

Thus, in this study and with this sample of junior school children statistically significant differences in global self-concept scores were found to exist with respect to age and sex separately.

****

DISCUSSION.

It is not quite straightforward to equate the findings of this study regarding age and sex differences with those obtained in previous research. This is because research into age and sex differences has produced many differing results. Nevertheless, an attempt will be made to compare the results of this study with those researches which have used children of a similar age.

Both age and sex differences were found by Amatora (1957) (1) who used a sample of 500 children aged 9 years to 13 years. She concluded that differences in the developmental trends between the sexes and among the five age levels studied did exist. In a study with younger children from kindergarten through third grade Guardo and Bohan (1971) (2) found sex differences in a child's sense of self identity. The key dimensions of the sense of self-identity were "individuality" for girls and "masculinity" for boys. These differences were minor at the age of 6 years but increased with age. In addition, clear qualitative differences were observed between the younger and older subjects.

Sex differences, but no age differences, were reported by Bledsoe (1967) (3). He found that in his sample of 271 fourth and sixth graders the girls had a greater self-esteem than the boys. Using a self-concept measure in terms of self-ideal self congruency Perkins (1958b) (4) found that in his sample of 251 fourth and sixth graders, the girls' self-ideal self congruencies were significantly greater than those of the boys.

In contrast to these studies, some have produced age differences but no sex differences. For instance, Piers and Harris (1964) (5)

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(1). Amatora, Sister Mary. (1957) "Developmental trends in pre-adolescence and in early adolescence in self-evaluation" J. Genetic Psychol. 91, 89-97.

(2). Guardo, C.J. and Bohan, J.B. (1971) "Development of a sense of self-identity in children" Child Development 42, 1909-1921.

(3). Bledsoe, J.C. (1967) "Self concepts of children and their intelligence, achievement, interests and anxiety" Childhood Education. 43, 436-438.

(4). Perkins, H.V. (1958b) "Factors influencing change in children's self concepts." Child Development. 29, 221-230.

(5). Piers, E.V. and Harris, D.B. (1964) "Age and other correlates of self concept in children." J. Educ. Psychol. 55, 91-95.

found no consistent sex differences between the children in their sample of third, sixth and tenth grade children. However, they did report that children in the third grade had a significantly higher reported self-concept than children in the sixth grade. Similar findings of age but no sex differences in self-concept scores were reported also by the following group of studies.

Using a sample of 185 kindergarten, first and second grade children Klaff and Doherty (1975) (6) found that self-concept increased from kindergarten to grade two, but no significant sex differences were present. Another recent study, that of West (1976) (7), found a significant age difference in mean self-concept between the grades one, three and six. No significant sex differences were, however, reported. Soule etal (1981) (8) also reported no sex differences in their sample of 461 children, but did find that the self-concept of children in grade 2 were significantly higher than those obtained by the children in kindergarten or grade 1.

Two researches in which age was not measured also reported no sex differences in self-concept scores. Dyson (1967) (9), using a single age range of 767 seventh graders to examine the effect of ability grouping on the self-concept, reported no significantly different patterns of self acceptance between the boys and the girls. Using the same self-concept measure i.e. The Index of Adjustment and Values, Koocher (1974) (10) found no significant sex differences for self-concept between the children in his sample. The children were grouped according to Piaget's levels of cognitive functioning, and results of no sex difference were reported for each level.

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(6). Klaff, F.R. and Doherty, E.M. (1975) "Children's self concepts and attitude toward school in open and traditional classrooms" J. of School Psychology 13, 97-103.
(7). West, J.L. (1976) "An investigation of children's self-concept variance in the elementary school grades one, three and six" Utah State University, Unpublished Ph.D. Thesis.
(8). Soule, J.C., Drummond, R.J. and McIntire, W.G. (1981) "Dimensions of self concept for children in kindergarten and grades one and two" Psychological Reports. 48, 83-88.
(9). Dyson, E. (1967) "A study of ability grouping and the self concept." J. Educ. Research 60, 403-405.
(10). Koocher, G.P. (1974) "Emerging selfhood and cognitive development." J. Genetic Psychol. 125, 79-88.

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Completely opposite findings to those of the present study were reported by the next group of researchers. They discovered neither sex or age differences. Lipsitt (1958) (11) using 300 fourth, fifth and sixth graders and Chang (1976) (12) with a sample of 198 fourth, fifth and sixth graders found no sex or age differences in the reported self-concepts of their respective samples. Bohan (1973) (13) studying the self-concepts of children over a larger age range i.e. grades four to grade ten, reported that except for tenth grade girls, age and sex comparisons for self-concept scores were not significant for grades four, six and eight.

So far the findings of the present study, of both age and sex differences, have been contrasted with findings in the following three groups of studies. Firstly, those with similar results; secondly, with those researches which found age but no sex differences; and finally, with studies that have found neither age nor sex differences. The next group of studies indicate a substantial similarity between their findings and the findings of the present study regarding the decline in self-concept with age.

Long etal (1967) (14) used a sample of 363 six to thirteen year olds. They found a significant effect for grade in relation to self-esteem. The highest score was found in the first grade. There was a sharp drop in the second grade, which displayed the lowest scores. Self-concept scores rose in the third and fourth grades and declined somewhat in the fifth and sixth grades. Stanwyck (1972) (15) in a longitudinal and a cross sectional sample found that for all students the total self-concept score showed a sharp drop from grade two to grade four. West (1976) (16)

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(11). Lipsitt, L.P. (1958) "A self concept scale for children and its relationship to the children's form of the manifest anxiety scale" Child Development. 29, 463-472.
(12). Chang, T.S. (1976) "Self concepts, academic achievement, and teacher's rating." Psychology in the Schools 13, 111-113.
(13). Bohan, J.S. (1973) "Age and sex differences in self concept" Adolescence 8, 379-384.
(14). Long, B.H., Henderson, E.H. and Ziller, R.C. (1967) "Developmental changes in the self concept during middle childhood" Merrill-Palmer Quarterly. 13, 201-215.
(15). Stanwyck, J.J. (1972) "Self concept development: A longitudinal study" Unpublished Ph.D. Thesis. Purdue University.
(16). West, J.L. (1976) "An investigation of children's self-concept variance in the elementary school grades one, three and six" Utah State University, Unpublished Ph.D. Thesis.

using 248 pupils reported that first grade children's mean self-concept scores were higher than those for the third or sixth grade children. The most significant variance between grade means occurred at the third grade level where a sharp decline was indicated. Mean sixth grade scores showed an increase after grade three.

The similarity of the findings of these three studies to those of the present study are apparent in that self-concept scores are the highest for the youngest children in the sample. This is then followed by a sharp decline in the following years, with a rise in the fourth year.

EXPLANATION OF THE FINDINGS.

An explanation of the age and sex differences found in this study is not readily obvious. The global self-concept scores with respect to age show a general trend from the youngest children having the highest scores to the third year children having the lowest scores. It is possible that the younger children could have global self-concepts which are not realistic, giving them inflated self-concept scores. As they mature these self-concepts become more realistic and lower in value.

The sex difference in favour of the girls is against the general trend of results from past research. It is possible that the global scale in this study contains items more favourable to girls than boys and consequently results in a higher global self-concept score for the girls. This artifact of measurement was suggested by Bledsoe (1973) (17) to explain his results in favour of the girls. He investigated specific adjectives in an adjective check list measure of self-concept to determine whether or not, and which specific adjectives differentiate boys from girls. The subjects were 400 children in the fourth and sixth grades. He found that out of a 30 adjective self-concept scale, 20 items favoured the girls, one favoured the boys and nine produced no sex difference.

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(17). Bledsoe, J.C. (1973) "Sex differences in self-concept. Fact or Artifact" Psychological Reports 32, 1253-1254.

The adjective which produced the greater sex difference seemed to connote "goodness", which Bledsoe equates with a feminine rather than a masculine role.

The reasons given above for the age and sex differences found in this study are only suggestions and relatively weak ones. I feel that a more important and fundamental explanation of the results lies in the use of a global self-concept measure. A global measure can mask various underlying relationships and by its construction is bound to reflect the strongest relationship present in the sub-scales. In other words, the results obtained by using global scores can be an artifact of measurement. It is suggested that more profitable and meaningful results would be obtained if specific self-concept measures are used instead of global scores.

It is my view that specific self-concepts are more valuable than global self-concepts when assessing the effects of age and sex. Hence the five factors that were identified in the self-concept scale will be analysed in turn and discussed in the following pages.

BEHAVIOURAL SELF-CONCEPT: AGE AND SEX DIFFERENCES.

TABLE 22 RESULTS OF THE 2 WAY ANOVAR OF BEHAVIOURAL SELF BY SEX, AGE.

SOURCE OF VARIATION	SUM OF SQUARES	D.F.	MEAN SQUARE	F	SIGN OF F
MAIN EFFECTS	78.3	4	19.6	30.5	0.000
AGE	35.1	3	11.7	18.2	0.000
SEX	48.0	1	48.0	74.8	0.000
2 WAY INTERACTIONS	5.5	3	1.8	2.9	0.035
AGE SEX	5.5	3	1.8	2.9	0.035
EXPLAINED	83.8	7	11.9	18.7	0.000
RESIDUAL	471.0	734	0.6		
TOTAL	554.9	741	0.7		

TABLE 23 MEANS ON BEHAVIOURAL SELF FOR THE GROUPS SHOWN IN THE 2 WAY ANOVAR IN TABLE 22.

	Year Mean	Year N	BOYS		GIRLS	
			Mean	N	Mean	N
Age 1	0.30	174	0.03	98	0.64	76
Age 2	0.02	203	-0.25	116	0.38	87
Age 3	-0.30	156	-0.63	74	-0.00	82
Age 4	-0.04	209	-0.16	110	0.08	99

TOTAL N = 742.

RESULTS.

Factor 1 was identified from the factor analysis of N = 742, V = 21 as providing a measure of a behavioural self-concept.

Consideration of Tables 22 and 23 show a clear sex difference between the boys and girls on the behavioural self-concept scale. The F ratio of 74.8 was highly significant beyond the .001 level. The behavioural self-concept scores for the girls were markedly higher than those obtained for the boys. The girls in this study definitely rated their behaviour much higher than the boys.

The year mean scores for the boys in three of the four school years were all negative, while the girls' scores all tended to be positive. The boys exhibit a very negative view of their behaviour.

A significant age difference is also apparent for the scores on this factor. The F ratio of 18.2 is significant beyond the .001 level. The first year children had the highest mean score for the behavioural self-concept. This score declined through the second year sample to reach its lowest value in the third year. The fourth year mean score shows an increase to approximately the second year score.

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There is a slight sex/age interaction present in the scores. The boys' mean scores follow the year mean scores as outlined above. The girls in the first year have the highest score. This falls to its lowest value in the third year, but it does not rise in the fourth year as the boys' mean score did. Thus, consideration of the year mean scores for the girls indicate that the third and fourth year girls have the lowest behavioural self-concept scores.

DISCUSSION.

In an attempt to relate the findings of the present study to previous research difficulty was experienced since not many scales have incorporated in them a behavioural self-concept measure. Two published scales that do contain a subscale on this concept are the Tennessee Self-Concept Scale by Fitts (1965) (18) and the Children's Self-Concept Scale by Piers and Harris (1964) (19).

West (1976) (20) gave the Piers and Harris Children's Self Concept Scale to 248 children in the first, third and sixth grades of six elementary schools. He found a similar decline in children's self-conception with age as did the present study. In West's study there was a significant decline at the .05 level from the first grade scores to a low third grade score, while an increase was noted at the sixth grade level. He also discovered that females appeared to be more stable in terms of variability from grades one, three and six on the subscale of behaviour than did the males. Furthermore, a sex difference was found to exist between the children's scores at the .05 level of significance.

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(18). Fitts, W.H. (1965) Tennessee Self Concept Scale: Manual. Counselor Recordings and Tests, Department of Mental Health. Nashville, Tennessee.

(19). Piers, E.V. and Harris, D.B. (1964) "Age and other correlates of self concept in children." J. Educ. Psychol. 55, 91-95.

(20). West, J.L. (1976) "An investigation of children's self-concept variance in the elementary school grades one, three and six" Utah State University, Unpublished Ph.D. Thesis.

It is interesting to note, but not very surprising, that the girls viewed themselves far more positively than boys in the present study on a scale that assessed aggressive traits like fighting, arguing etc. The socialization process that begins at birth, regardless of its rights or wrongs, tends to expect boys to be more aggressive than girls. In rough play situations the tolerance of parents towards boys is often expressed by the remarks "Boys will be boys!" or "They're only being boys, after all!" Society in general often considers certain traits to be lady like and aggressive behaviour, in which you verbally or physically attack your peers, is not one of them. This tolerance towards boys with respect to rough play etc could be a determining factor in boys "admitting" their aggression more freely than girls.

A sex difference as large as that found in this study should be treated with caution according to Zahran (1967) (21). He advises that sometimes a sex difference is so large that one cannot defend mixing the sexes in self-concept studies.

The marked sex difference obtained for the behavioural self-concept has repercussions for the global self-concept scale. The former accounts for some 4% of the variance as seen in TABLE 16. A marked sex difference apparent on the behavioural self-concept scale will thus be reflected in the global self-concept score. Hence, the global self-concept score should be treated with caution.

AGE AND SEX DIFFERENCES IN THE SOCIAL SELF-CONCEPT.
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TABLE 24 RESULTS OF THE 2 WAY ANOVAR OF SOCIAL SELF BY AGE, SEX.

SOURCE OF VARIATION	SUM OF SQUARES	D.F.	MEAN SQUARE	F	SIGN OF F
MAIN EFFECTS	3.7	4	0.9	1.2	0.30
AGE	2.0	3	0.7	0.9	0.50
SEX	1.4	1	1.4	1.8	0.20
2 WAY INTERACTIONS	0.2	3	0.1	0.1	0.95
AGE SEX	0.2	3	0.1	0.1	0.95
EXPLAINED	3.9	7	0.6	0.7	0.65
RESIDUAL	578.4	734	0.8		
TOTAL	582.3	741	0.8		

(21). Zahran, H.A.S. (1967) "The self concept in the psychological guidance of adolescents" Brit. J. Educ. Psychol. 37, 225-240

TABLE 25 MEANS ON SOCIAL SELF FOR THE GROUPS SHOWN IN THE 2 WAY ANOVAR IN TABLE 24.

	YEAR MEAN	YEAR N	BOYS		GIRLS	
			MEAN	N	MEAN	N
Age 1	0.07	174	0.10	98	0.03	76
Age 2	0.02	203	0.04	116	-0.01	87
Age 3	-0.10	156	-0.06	74	-0.13	82
Age 4	-0.00	209	0.06	110	-0.08	99

TOTAL N = 742.

RESULTS.

Factor 2 was identified as a measure of social self-concept. This is a factor that samples how the child perceives his friendship patterns with his peers.

The analysis of variance of the social self-concept scores indicated that there were no significant differences between the mean scores of the boys and those of the girls. Furthermore, the mean year scores for this factor produced no significant differences. Thus, no significant age or sex differences were found in the children's scores for social self-concept.

DISCUSSION.

The difficulty experienced with the lack of behavioural self-concept scales is also apparent for this subscale of social self. Extensive research has focused upon the effect of peer status with self-concept, but these self-concept scales are usually global in nature. Few self-concept scales have a social self component.

The Tennessee Self Concept Scale, however, has a social self subscale and one study to use this measure was Stoner and Kaiser

(1978) (22). They used 29 male and 33 female high school juniors and found a sex difference in favour of the boys. However, the age of their sample is higher than that of the present sample and it is also only a small sample, thus making comparison limited.

Barker Lunn (1970) (23) used a four statement measure which she termed a "social adjustment" scale. This appears on face value to be similar to that of the social self-scale of the present study. However, Barker Lunn found that a sex difference existed in favour of the boys, who she found were more socially adjusted than girls.

In line with the findings of the present study no sex differences were found by Soule etal (1981) (24) in their sample of 461 children from the kindergarten, first and second grade. They used the Instruction Objectives Exchange Self-Appraisal Inventory which purports to measure four dimensions of the self including a self-esteem scale associated with peer relations.

Similar findings to the present study of no sex and no age differences were reported by Larned and Douglas (1979) (25). Using the Self Descriptive Inventory they assessed self-concept and self-esteem in peer relations in a sample of 1,471 New Mexican children across grades one to nine. The differences found were slight and somewhat erratic. Overall, the positiveness of the self-concept remained stable.

Although the results of the present study are encouraging, further evidence is necessary to establish any possible trends that may exist in this area of social self-concepts. The use of specific social self-concept scales should be encouraged.

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(22). Stoner, S. and Kaiser, L. (1978) "Sex differences in self concepts of adolescents" Psychological Reports. 43, 305-306.
(23). Barker Lunn, J.C. (1970) Streaming in the Primary School. Slough: N.F.E.R.
(24). Soule, J.C., Drummond, R.J. and McIntire, W.G. (1981) "Dimensions of self concept for children in kindergarten and grades one and two" Psychological Reports. 48, 83-88.
(25).

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GENERAL SCHOOL SELF-CONCEPT: AGE AND SEX DIFFERENCES.

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TABLE 26 RESULTS OF THE 2 WAY ANOVAR OF GENERAL SCHOOL SELF BY AGE, SEX.

SOURCE OF VARIATION.	SUM OF SQUARES.	D.F.	MEAN SQUARE	F	SIGN OF F
MAIN EFFECTS	54.5	4	14.4	19.3	0.000
AGE	14.7	3	4.9	6.6	0.000
SEX	44.0	1	44.0	59.0	0.000
2 WAY INTERACTIONS	5.1	3	1.7	2.3	0.10
AGE SEX	5.1	3	1.7	2.3	0.10
EXPLAINED	62.6	7	8.9	12.0	0.000
RESIDUAL	547.6	734	0.7		
TOTAL	610.2	741	0.8		

TABLE 27 MEANS ON GENERAL SCHOOL SELF FOR THE GROUPS SHOWN IN THE 2 WAY ANALYSIS IN TABLE 26.

	YEAR MEAN	YEAR N	BOYS		GIRLS	
			MEAN	N	MEAN	N
AGE 1	-0.10	174	0.19	98	-0.48	76
AGE 2	0.11	203	0.33	116	-0.18	87
AGE 3	0.17	156	0.48	74	-0.11	82
AGE 4	-0.15	209	-0.03	110	-0.28	99

TOTAL N = 742.

RESULTS.

Factor 3 of the factor analysis of the scores of the 742 children in the sample was considered to be a measure of the child's general school self-concept. This is a non-academic construct and provides a measure of the attitudes a child holds towards his school in general.

Examination of Tables 26 and 27 indicates a marked sex difference in the general school self-concept scores. A F ratio of 59.0 was significant beyond the .001 level. This clear sex difference is in favour of the boys. The girls produced far lower scores on this measure than the boys, and also rated themselves negatively, while the boys tended to produce positive ratings.

A F ratio of 6.6 with $p < .001$ indicated that age differences are apparent for the general school self-concept scores of the four year sample. A rise in the scores can be seen from the first year to the third year level. The third year scores for both the boys and girls are the highest obtained for each respective sex group. The fourth year scores show a marked decline from the third year scores with the boys producing their lowest general school self-concept score. The girls' scores fall as well, but not beyond their mean first year level. The general trend is thus one of low general school self-concept scores in the first and final years of the junior school sample with the third year producing the highest scores.

DISCUSSION.

The summary of the factor by factor list of item loadings in Table 18 provides two school related factors. The general school self and the academic self concepts are distinct measures. This differentiation is not as clear in other self-concept research. Often a scale which is termed a "school self-concept" means an "academic" self-concept in measurement terms. Consequently, great difficulty has been experienced in identifying studies which give a measure of general school self-concept as opposed to academic self-concept.

One recent study by Williams (1976) (26) measured the attitudes and dispositions toward school of 93 second graders, 86 third graders and 77 fourth graders using the Self Concept and Motivation Inventory. The results obtained showed that both school motivation and school self-concept decreased significantly from the third to the fourth grade. These results appear very similar to those obtained for the effect of age on general school self-concept in this present study i.e. from third year junior to fourth year junior there is a significant decrease in general school self-concept, although the actual age of the children involved in both studies is slightly different.

The explanation for the present findings of low first year scores could lie in the fact that some months previously the children had just left the Infant school or department. Time is needed to settle into the junior department and adjust to differing values. The sudden drop in the fourth year scores is more puzzling, but may be due to the increased pace of school life and greater expectations of staff and parents.

The marked sex difference in favour of the boys is surprising. It is generally accepted that girls are more mature than boys at this age, tend to do better in school and frequently conform to the teacher's idea of ideal pupils. In view of this, the above result is somewhat against expectation. However, since little research exists that measures general school self-concepts no comparisons can be made. This could be a profitable area for future research.

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(26). Williams, F.E. (1976) "Rediscovering the fourth grade slump in a study of children's self concepts" J. Creative Behavior. 10; 15-28.

ACADEMIC SELF-CONCEPT: AGE AND SEX DIFFERENCES.
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TABLE 28 RESULTS OF THE 2 WAY ANOVAR OF ACADEMIC SELF BY AGE, SEX.

SOURCE OF VARIATION.	SUM OF SQUARES.	D.F.	MEAN SQUARE.	F.	SIGN OF F.
MAIN EFFECTS	15.9	4	3.9	5.1	0.000
AGE	14.9	3	5.0	6.6	0.000
SEX	0.3	1	0.3	0.4	0.50
2 WAY INTERACTIONS	2.8	3	0.9	1.2	0.30
AGE SEX	2.8	3	0.9	1.2	0.30
EXPLAINED	18.3	7	2.6	3.5	0.001
RESIDUAL	555.3	734	0.7		
TOTAL	573.7	741	0.8		

TABLE 29 MEANS ON ACADEMIC SELF FOR THE GROUPS SHOWN IN THE 2 WAY ANOVAR IN TABLE 28.

	YEAR MEAN	YEAR N	BOYS		GIRLS	
			MEAN	N	MEAN	N
AGE 1	-0.15	174	-0.12	98	-0.19	76
AGE 2	-0.07	203	-0.09	116	-0.04	87
AGE 3	0.26	156	0.30	74	0.21	82
AGE 4	0.00	209	-0.10	110	0.11	99

TOTAL N = 742.

RESULTS.

A distinct factor relating to academic self-concept was identified in Factor 4 of the factor analysis N = 742, V = 21 as indicated in Table 18. This gave a measure of the academic rather than the general school self-concept of Factor 3.

The analysis of variance of the academic self-concept scores with regard to sex produced no significant differences. An F ratio of 6.6 for the effect of age was found to be significant at $p < .001$. Examination of Table 29 indicates that the lowest academic self-concept scores are to be found in the first year group of children. At this age, both sexes have a negative academic self-concept mean score. This mean score increases through the second year to reach its maximum value in the third year. There is a sharp decline in the fourth year mean score.

This decline is somewhat different for the sexes. The boys' score drops dramatically to the same level as the second year boys. The decline in the fourth year girls' score is not so severe, and its value remains positive.

Thus, for the sample of children used in this study age differences were found on the academic self scale, but no sex differences were significant.

DISCUSSION.

Comparisons of the results of the present study with those found in previous studies is limited. Numerous studies have been made in recent years linking self-concept with academic performance. Differences have been found for both sex and age. However, the majority of these studies have used general self-concept measures. Until recently, only a relative minority have used a specific academic self-concept measure to report the effects of age and sex.

This is rather surprising since quite a large number of academic self measures have been designed. These do, however, vary widely in their choice of items on which to assess a pupil's academic self-concept eg reading, maths etc. The results of the present study will only be compared with those studies that have used specific academic self-concept measures and not global techniques.

In the well known work of Brookover etal (1962) (27) in which only seventh grade children were used, it was found that girls had a significantly higher mean self-concept of ability than did the boys. Dyson (1967) (28), however, reported no sex differences when the Word Rating List was used to yield an index of a specific academic self-concept. To complete these differing results Barker Lunn (1970) (29) found that boys in her sample had a more favourable academic self-image than girls.

Larned and Muller (1979) (30) using a larger age range than that of the present sample found a dramatic decline in the positiveness of the self-concept in the area of academic success across the grades in their sample. The children in grades one and two had higher scores in self-concept for academic success than did those children in grades three through nine. However, no significant differences between male and female means were found at any grade level.

These findings resemble the results of the present study in that no sex differences are apparent and that a large decrease in self-concept academic success is noticed after the second grade. The decline in academic self-concept in the present study occurs after the third year in the junior school.

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(27). Brookover, W.B. and Patterson, A. (1962) Self concept of ability and school achievement. Michigan State University Press.
(28). Dyson, E. (1967) "A study of ability grouping and the self concept." J. Educ. Research 60, 403-405.
(29). Barker Lunn, J.C. (1970) Streaming in the Primary School. Slough: N.F.E.R.
(30). Larned, D.T. and Muller, D. (1979) "Development of self concept in grades one through nine" J. of Psychol. 102, 143-148.

Although a "settling in" period for infants entering the junior department is normal, the general expectations of junior school teachers are usually different from infant teachers; as indeed is the overall atmosphere of the school. It is understandable that the new arrivals have a negative academic self-concept faced with new schools, teachers, expectations, work demands and possible parental warnings as to what is expected of them in "the new school".

The increase in academic self-concept through the years to a maximum value in the third year suddenly declines in the fourth year, due possibly to the more demanding work expected by both teachers and parents. Another cause could be the extra pressure exerted by "external" assessments. All fourth year pupils in this sample were aware that they would be "screened" by their proposed secondary school. A combination of these factors plus their maturing age and more realistic appraisals of themselves could lead to the marked decline found in the fourth year.

AGE AND SEX DIFFERENCES IN PARENTAL SELF-CONCEPT.
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TABLE 30 RESULTS OF THE 2 WAY ANOVAR OF PARENTAL SELF BY AGE, SEX.

SOURCE OF VARIATION.	SUM OF SQUARES.	D.F.	MEAN SQUARE.	F.	SIGN OF F.
MAIN EFFECTS	15.2	4	3.8	5.4	0.000
AGE	5.6	3	1.9	2.7	0.05
SEX	10.2	1	10.2	14.5	0.000
2 WAY INTERACTIONS	0.3	3	0.1	0.1	0.95
AGE SEX	0.3	3	0.1	0.1	0.95
EXPLAINED	15.5	7	2.2	3.2	0.003
RESIDUAL	514.8	734	0.7		
TOTAL	530.3	741	0.7		

TABLE 31 MEANS ON PARENTAL SELF FOR THE GROUPS SHOWN IN THE 2 WAY ANOVAR IN TABLE 30.

	YEAR MEAN.	YEAR N.	BOYS.		GIRLS.	
			MEAN	N	MEAN	N
AGE 1	0.11	174	0.00	98	0.26	76
AGE 2	-0.06	203	-0.17	116	0.09	87
AGE 3	-0.11	156	-0.24	76	0.02	82
AGE 4	0.04	209	-0.04	110	0.13	99

TOTAL N = 742.

RESULTS.

The fifth and final factor was considered to be a measure of a parental self-concept. This samples how the child accepts his parents as authoritarian figures. It also assesses whether any feelings of resentment towards them are apparent.

A significant sex difference is indicated by a F ratio of 14.5 and $p < .001$. The girls' parental self-concept scores are significantly higher than those of the boys in the sample. Thus, the girls view their relationship with their parents in a significantly more positive way than the boys.

A F ratio of 2.7 indicates that an age effect for the sample's parental self-concept scores is significant at $p < .05$. The youngest children have the highest scores on this scale. There is a decline through the second year to the lowest scores which are obtained in the third year. The fourth year scores rise again to approach those of the second year.

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DISCUSSION.

The findings of the present study are similar to those of previous research. For instance, the perceptions of 40 fourth and fifth graders with respect to acceptance/rejection and intrinsic - extrinsic valuation by parents were investigated by Ausubel etal (1954) (31). They found that girls perceived themselves as significantly more accepted and intrinsically valued than did boys.

In a study using a larger sample of 373 children Long etal (1967) (32) reported that in comparison to girls, boys showed a less close relationship with the same sexed parent. A similar pattern to that in the present study was reported by Long etal in that they found that first graders showed high parental identification, with a decrease in the second grade. Children in the second grade had the least identification with their parents. From this grade there was a general trend which showed an increase which reached a peak after the third grade.

Kokenes (1974) (33), in a factor analytic study of 1500 students from grades four to eight, concluded that the strong negative perceptions of eighth graders relating to home and parents suggest that as children mature, feelings of worth relating to the home decrease. This age group is not considered in the present study, but together with the findings indicated above may suggest that parental self-concepts of children are not linear with age.

The sex difference in favour of the girls is not surprising in that it would be expected that a scale which assesses constructs such as "pick on me", angry with me" may be loaded in favour of the girls. The general decline in parental self-concept scores in this study from first year to the lowest scores in the third year could be explained by the fact that as children grow older and question authority, rules etc they reach a peak of resentment towards

(31). Ausubel, D.P. etal (1954) "Perceived parent attitudes as determinants of children's ego structure." Child Development. 25, 173-183.

(32). Long, B.H., Henderson, E.H. and Ziller, R.C. (1967) "Developmental changes in the self concept during middle childhood" Merrill-Palmer Quarterly. 13, 201-215.

(33). Kokenes, B. (1974) "Grade level differences in factors of self-esteem" Development Psychology 10, 954-958.

their parents. It would be interesting to examine this trend further into adolescence.

CONCLUSION.

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Doubts were raised on page 190 of this chapter concerning the use of a global self-concept scale when examining the effect of age and sex. Examination of the five factors that comprised the global self-concept scale of this study produced differences that were obscured by simply considering the global scale. Thus, the effect of sex varied according to the factors considered. Two subscales were in favour of the girls, one in favour of the boys and two indicated no significant sex differences. The effect of age was also different according to the subscale used i.e. first year children scored highest on two factors, third year children were highest on two, and one factor produced no significant age difference.

Some other recent studies have shown the value in examining specific aspects of the self-concept. Smith (1978) (34) examined sex differences in the self-concepts of 305 fourth, fifth and sixth graders attending four state run schools. He found that boys had significantly more favourable self-concepts on four of the nine subscales of the Sears Self Concept Inventory. Sex differences were also found on different specific self-concepts by Piper (1976) (35). She reported that females tended to express more positive attitudes to school and or teachers, and to see themselves as more anxious or unsure than did boys. They also had higher scores on the school affiliation and social maturity scales.

The work of Larned and Muller (1979) (36) has already been quoted in this chapter. They found that the developmental patterns for

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(34). Smith, I.D. (1978) "Sex differences in self concept revisited." Australian Psychologist. 13, 161-166.
(35). Piper, P.E. (1976) "Self-concept differences between white male and white female elementary school students." Unpublished Ph.D. Thesis, Duke University.
(36). Larned, D.T. and Muller, D. (1979) "Development of self concept in grades one through nine" J. of Psychol. 102, 143-148.

positiveness of self-concept and self-esteem differed according to the specific area tested.

It is my opinion, that as suggested by the findings in this chapter, that specific self-concept scales are more valuable than global self-concept scales when assessing the effects of age and sex.

SUMMARY OF THE RESULTS OF TABLES 20 TO 31.
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GLOBAL SELF-CONCEPT.

1. Significant sex differences were found in favour of the girls.
2. Significant age differences were found with the first year children having the highest mean scores and the third year children having the lowest mean score.

BEHAVIOURAL SELF-CONCEPT.

Significant age and sex differences were found following the trend of the above global self-concept.

SOCIAL SELF-CONCEPT.

No significant age or sex differences were found.

GENERAL SCHOOL SELF-CONCEPT.

1. A significant sex difference was found in favour of the boys.
2. Significant age differences were found, with the first year and fourth year having the lowest mean scores, while the third year had the highest mean score.

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ACADEMIC SELF-CONCEPT.

1. No significant sex difference found.
2. Significant age differences were found with the first year having the lowest scores and the third year the highest.

PARENTAL SELF-CONCEPT.

1. Significant sex differences found in favour of the girls.
2. Significant age differences found with the third year having the lowest mean scores.

is significant at $p < .05$. However, those children who have the highest peer status rate themselves lowest on the academic self-scale. Furthermore, the children in peer status groups 2 and 3 rate themselves on the academic self scale higher than do the children in peer status 1.

These significant findings taken together would suggest that children in the highest peer status group have the highest mean social self scores, but also possess the lowest mean academic self scores.

The significant age and sex differences found for the global self and the five factor scores in the two way analysis of variance in Chapter 15 are repeated in the three way analysis of variance. However, two additional findings are worth considering when peer status is taken into account. The first is that a significant sex difference is to be found for the social self-concept as shown in Table 48. A F ratio of 3.6 and $p < .05$ indicates a significant sex difference. Examination of Table 49 shows this difference to be in favour of the boys. In the two way analysis of variance of social self-concept no significant sex difference was found, as reported in Tables 24 and 25.

Another interesting point concerns the sex difference for parental self scores which are confirmed overall in the direction of the girls as shown in Tables 54 and 55. This follows the results for the two way analysis of variance in Chapter 15. However consideration of peer group 3, the lowest peer status group, shows that there is little difference between the boys and the girls mean scores for the second, third and fourth year children. Thus, while significant sex differences are found overall in relation to peer status grouping, it appears that those children who are poorly accepted by their peers show no sex difference in their scores for parental self-concept. This tends to suggest that low peer status girls may have lower parental self-concepts than higher peer status girls. These girls are not only disliked by their peers, but they feel that their parents are against them too.

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SUMMARY OF TABLES 44 TO 55.

1. No significant differences were found for global self-concept, behavioural self-concept, general school self-concept and parental self-concept scores with respect to peer status grouping.

2. A significant difference in social self-concept scores was found with respect to peer status. The children in peer status group 1 held the highest mean social self-concept scores.

3. A significant difference in academic self-concept scores was found with respect to peer status. The children in peer status group 1 held the lowest academic self-concept scores.

4. A differing sex result to that obtained in the two way analysis of variance was found. A significant sex difference in favour of the boys was apparent for the social self-concept scores.

5. There was a tendency for the older children in peer status 3 to show no sex difference in parental self-concept scores.

ABILITY GROUP AND SELF-CONCEPT.

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A sample of 417 children were used to form the three ability groups of high, average and low in this analysis as explained in Chapter 14, Pg. 173. The results of the series of three way analysis of variance of age, sex and ability grouping for global self-concept and the five factor scores are shown in the Tables 56 to 67.

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TABLE 56.

RESULTS OF THE 3 WAY ANOVAR OF GLOBAL SELF CONCEPT BY ABILITY GROUP, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	12890	6	2.148	7.5	0.000
ABILITY GROUP (A.G.)	1605	2	802	2.8	0.60
SEX	4384	1	4384	15.3	0.000
AGE	7201	3	2400	8.4	0.000
2 WAY INTERACTIONS	4549	11	414	1.5	0.15
A.G. SEX	110	2	55	0.2	0.80
A.G. AGE	3818	6	636	2.2	0.04
SEX AGE	253	3	85	0.3	0.80
3 WAY INTERACTIONS	597	6	100	0.3	0.90
A.G. SEX AGE	597	6	100	0.3	0.90
EXPLAINED	18037	23	784	2.7	0.000
RESIDUAL	112334	393	285		
TOTAL	130372	416	313		

TABLE 57. MEANS ON GLOBAL SELF CONCEPT FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 56.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
Ability Group 1	1	110.9	43	108.5	31	117.3	12
MEAN = 109.8	2	104.9	44	103.4	32	109.1	12
N = 172	3	103.9	37	100.6	22	108.9	15
	4	117.5	48	116.8	32	119.0	16
Ability Group 2	1	119.5	41	114.3	14	122.1	27
MEAN = 110.1	2	107.2	48	105.7	27	109.3	21
N = 166	3	103.3	29	98.1	16	109.8	13
	4	109.1	48	106.6	21	111.0	27
Ability Group 3	1	109.7	12	108.0	9	115.0	3
MEAN = 105.1	2	107.7	24	103.2	13	113.0	11
N = 79	3	99.9	18	99.7	3	99.9	15
	4	104.1	25	98.4	12	109.3	13

TOTAL N = 417.

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TABLE 58.

RESULTS OF THE 3 WAY ANOVAR OF BEHAVIOURAL SELF BY ABILITY GROUP, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	43.6	6	7.3	11.5	0.000
ABILITY GROUP (A.G.)	0.6	2	0.3	0.5	0.60
SEX	18.4	1	18.4	29.0	0.000
AGE	23.9	3	7.9	12.6	0.000
2 WAY INTERACTIONS	15.3	11	1.4	2.2	0.01
A.G. SEX	0.2	2	0.1	0.2	0.80
A.G. AGE	12.1	6	2.0	3.2	0.005
SEX AGE	1.3	3	0.4	0.7	0.60
3 WAY INTERACTIONS	2.8	6	0.5	0.7	0.60
A.G. SEX AGE	2.8	6	0.5	0.7	0.60
EXPLAINED	61.7	23	2.7	4.2	0.000
RESIDUAL	248.7	393	0.6		
TOTAL	310.3	416	0.7		

TABLE 59. MEANS ON BEHAVIOURAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 58.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
Ability Group 1	1	.06	43	-.10	31	.45	12
MEAN = -.03	2	-.10	44	-.23	32	.23	12
N = 172	3	-.35	37	-.49	22	-.14	15
	4	.20	48	.16	32	.29	16
Ability Group 2	1	.85	41	.59	14	.98	27
MEAN = .15	2	-.001	48	-.28	27	.35	21
N = 166	3	-.22	29	-.51	16	.13	13
	4	-.06	48	-.23	21	.06	27
Ability Group 3	1	.30	12	.39	9	.02	3
MEAN = .01	2	.23	24	-.09	13	.61	11
N = 79	3	-.21	18	-.26	3	-.20	15
	4	-.16	25	-.43	12	.08	13

TOTAL N = 417.

TABLE 60.

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RESULTS OF THE 3 WAY ANOVAR OF SOCIAL SELF BY ABILITY GROUP, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	9.6	6	1.6	2.2	0.05
ABILITY GROUP (A.G.)	5.9	2	2.9	4.0	0.02
SEX	0.3	1	0.3	0.4	0.50
AGE	2.9	3	0.9	1.3	0.30
2 WAY INTERACTIONS	7.9	11	0.7	1.0	0.45
A.G. SEX	5.1	2	2.5	3.4	0.03
A.G. AGE	1.9	6	0.3	0.4	0.80
SEX AGE	0.7	3	0.2	0.3	0.80
3 WAY INTERACTIONS	1.6	6	0.3	0.4	0.90
A.G. SEX AGE	1.6	6	0.3	0.4	0.90
EXPLAINED	19.2	23	0.8	1.1	0.30
RESIDUAL	290.3	393	0.8		
TOTAL	309.4	416	0.7		

TABLE 61. MEANS ON SOCIAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 60.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
Ability Group 1 MEAN = .11 N = 172	1	.12	43	.02	31	.38	12
	2	-.03	44	-.07	32	.10	12
	3	-.02	37	-.01	22	-.04	15
	4	.33	48	.38	32	.23	16
Ability Group 2 MEAN = .02 N = 166	1	.04	41	.20	14	-.05	27
	2	.06	48	.29	27	-.24	21
	3	-.12	29	-.04	16	-.22	13
	4	.07	48	.19	21	-.03	27
Ability Group 3 MEAN = -.23 N = 79	1	-.34	12	-.42	9	-.12	3
	2	-.12	24	-.27	13	.06	11
	3	-.34	18	-.54	3	-.30	15
	4	-.21	25	-.29	12	-.13	13

TOTAL N = 417.

TABLE 62.

RESULTS OF THE 3 WAY ANOVAR OF GENERAL SCHOOL SELF BY ABILIY GROUP, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	30.8	6	5.1	7.5	0.000
ABILITY GROUP (A.G.)	0.2	2	0.1	0.1	0.90
SEX	14.3	1	14.3	20.9	0.000
AGE	15.1	3	5.0	7.3	0.000
2 WAY INTERACTIONS	9.7	11	0.9	1.3	0.20
A.G. SEX	0.2	2	0.1	0.2	0.80
A.G. AGE	8.0	6	1.3	2.0	0.07
SEX AGE	1.5	3	0.5	0.7	0.50
3 WAY INTERACTIONS	0.7	6	0.1	0.2	0.95
A.G. SEX AGE	0.7	6	0.1	0.2	0.95
EXPLAINED	41.1	23	1.8	2.6	0.000
RESIDUAL	269.2	393	0.7		
TOTAL	310.4	416	0.7		

TABLE 63. MEANS ON GENERAL SCHOOL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 62.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
Ability Group 1	1	-.09	43	.05	31	-.46	12
MEAN = -.03	2	.36	44	.43	32	.14	12
N = 172	3	.13	37	.30	22	-.12	15
	4	-.45	48	-.36	32	-.62	16
Ability Group 2	1	-.41	41	-.04	14	-.60	27
MEAN = -.13	2	-.02	48	.08	27	-.14	21
N = 166	3	.11	29	.41	16	-.26	13
	4	-.13	48	.01	21	-.25	27
Ability Group 3	1	-.27	12	-.11	9	-.77	3
MEAN = -.05	2	.02	24	.14	13	-.12	11
N = 79	3	.15	18	.50	3	.08	15
	4	-.15	25	.16	12	-.44	13

TOTAL N = 417.

TABLE 64.

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RESULTS OF THE 3 WAY ANOVAR OF ACADEMIC SELF BY ABILITY GROUP, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	20.8	6	3.5	4.7	0.000
ABILITY GROUP (A.G.)	15.5	2	7.7	10.5	0.000
SEX	0.0	1	0.0	0.1	0.80
AGE	4.9	3	1.7	2.2	0.08
2 WAY INTERACTIONS	5.2	11	0.5	0.6	0.80
A.G. SEX	2.5	2	1.3	1.7	0.20
A.G. AGE	1.4	6	0.2	0.3	0.90
SEX AGE	0.7	3	0.2	0.3	0.80
3 WAY INTERACTIONS	1.7	6	0.3	0.4	0.90
A.G. SEX AGE	1.7	6	0.3	0.4	0.90
EXPLAINED	27.8	23	1.2	1.6	0.03
RESIDUAL	290.7	393	0.7		
TOTAL	318.4	416	0.7		

TABLE 65. MEANS ON ACADEMIC SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 64.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
Ability Group 1	1	-.30	43	-.30	31	-.31	12
MEAN = -.28	2	-.32	44	-.34	32	-.25	12
N = 172	3	-.05	37	.01	22	-.13	15
	4	-.40	48	-.53	32	-.12	16
Ability Group 2	1	-.14	41	.02	14	-.22	27
MEAN = .01	2	-.00	48	.10	27	-.14	21
N = 166	3	.25	29	.34	16	.13	13
	4	.10	48	.07	21	-.04	27
Ability Group 3	1	.28	12	.28	9	.29	3
MEAN = .24	2	.03	24	-.05	13	.12	11
N = 79	3	.38	18	-.17	3	.50	15
	4	.31	25	.25	12	.37	13

TOTAL N = 417.

TABLE 66.

RESULTS OF THE 3 ANOVAR OF PARENTAL SELF BY ABILITY GROUP, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	14.5	6	2.4	3.5	0.002
ABILITY GROUP (A.G.)	1.2	2	0.6	0.9	0.40
SEX	3.4	1	3.4	4.9	0.03
AGE	9.0	3	3.0	4.3	0.005
2 WAY INTERACTIONS	6.2	11	0.6	0.8	0.60
A.G. SEX	1.1	2	0.5	0.8	0.45
A.G. AGE	5.2	6	0.9	1.3	0.30
SEX AGE	1.1	3	0.4	0.5	0.70
3 WAY INTERACTIONS	3.5	6	0.6	0.8	0.50
A.G. SEX AGE	3.5	6	0.6	0.8	0.50
EXPLAINED	24.2	23	1.0	1.5	0.06
RESIDUAL	271.5	393	0.7		
TOTAL	295.7	416	0.7		

TABLE 67. MEANS ON PARENTAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 66.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
Ability Group 1	1	.00	43	.04	31	-.08	12
	2	-.21	44	-.22	32	-.17	12
MEAN = -.02	3	-.13	37	-.30	22	.11	15
N = 172	4	.22	48	.10	32	.45	16
Ability Group 2	1	.40	41	.25	14	.47	27
	2	-.07	48	-.02	27	-.13	21
MEAN = .09	3	-.08	29	-.22	16	.09	13
N = 166	4	-.08	48	.01	21	.13	27
Ability Group 3	1	.28	12	.07	9	.92	3
	2	-.16	24	-.33	13	.04	11
MEAN = -.09	3	-.28	18	-.04	3	-.33	15
N = 79	4	-.07	25	-.36	12	.20	13

TOTAL N = 417.

RESULTS AND DISCUSSION.

Results shown in Tables 56 to 57 indicate that ability grouping, as graded by E.P.V.T. scores, has no significant relationship with behavioural self, general self and parental self-concept scores of the children used in this sample of 417. Significant results were obtained for social and academic self-concept scores.

The three way analysis of variance summarised in Table 56 shows that there are global self-concept differences for the different ability groups. The F ratio is 2.8, but the difference does not attain statistical significance since p = .06. From Table 57 it can be seen that the children in the lowest ability group have the lowest mean global self-concept scores, while those in the ability groups 1 and 2 have almost identical mean scores which are higher than those obtained for ability group 3.

Direct comparison of these findings with the majority of self-concept and academic ability research is limited. The research literature concerns itself, among other areas, with correlational studies, group differences, low and high achievers, over-achievers -under achievers, attainment and intelligence. Unfortunately this mass of studies often lack common features of experimental design. Thus only a sample of the possible cross references to past research will be considered. These will also be confined to studies using children who are grouped according to some ability measure.

Weinner and Weinner (1972) (14) investigated the effects of placement in ability groups of 215 seventh grade children on their school self and self-concepts. Their results generally supported their hypothesis of no difference among ability group mean scores on attitudes toward school and self-concept.

Strictly speaking, the comparison of the results of the present study with those of Weinner and Weinner, or any other "streaming" investigation, is suspect. The present study is concerned with

(14). Weinner, B.J. and Weinner, E.A. (1972) "Ability grouping, attitudes towards school, and self concept of seventh grade students" Psychological Reports. 30, 12-14.

self-concepts of ability groups that have been composed from mixed ability classes on the basis of a standardised score. The groups of children investigated in streaming studies already exist as ability groups and have been taught as a streamed class. The grouping procedures in both cases are different. This could lead to differences in the results.

Using only a small number of learning disabled children Bruininks (1978) (15) found their self-concepts, when compared to those of a control group randomly chosen, were poorer. However, in a study of 198 pupils from the fourth, fifth and sixth grades Chang (1976) (16) found that self-concept scores were not correlated significantly with achievement as measured by reading and maths' scores.

To instant further differences in research findings Bledsoe (1967) (17) found that there was a significant correlation between self-concept and intelligence for boys, but not for girls. These findings were similar to those of Fink (1962) (18) who found a significant relationship between adequate self-concept score and high achievement and inadequate self-concept and low academic achievement for boys, but not for girls.

In a study with 510 fourth through sixth graders Anastasiow (1972) (19) split his sample into high and low ability groups on the basis of the "SCAT 4A" ability test. Separate analyses were computered for boys and the girls. In either case, the research indicated that children who have low SCAT scores also have significantly more negative ways of rating themselves. A marked difference between the results

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(15). Bruininks, V.L. (1978) "Peer status and personality characteristics of learning disabled and non disabled students" J. of Learning Disabilities. 11, 484-489.

(16). Chang, T.S. (1976) "Self concepts, academic achievement, and teacher's rating." Psychology in the Schools 13, 111-113.

(17). Bledsoe, J.C. (1967) "Self concepts of children and their intelligence, achievement, interests and anxiety" Childhood Education. 43, 436-438.

(18). Fink, M.B. (1962) "Self-concept as it relates to academic underachievement." California Journal of Ed. Research. 13, 57-62.

(19). Anastasiow, N.J. (1972) "Sex differences in self concept scores of high and low ability elementary students" The Gifted Child Quaterly 11, 112-116.

of the low boys and the low girls seemed to indicate that low SCAT girls had a much more negative way of viewing themselves than boys.

Different results were found by Trowbridge (1974) (20) who investigated the relationship between self-concept and I.Q. in elementary school children. The findings suggest that children on the high and the low end of the I.Q. continuum had lower scores on the Coopersmith Self Esteem Inventory (C.S.E.I.) than those in the middle of the range. The relationship was significant, but not linear. A more detailed comparison between the high I.Q. children, drawn from the 90th percentile and those between the 40th and 60th percentile was then made. The high I.Q. group had significantly lower C.S.E.I. scores than the centre I.Q. group.

The studies summarised above tend to illustrate the inconsistent findings in the area of global self-concepts. The study by Mintz and Muller (1977) (21) was concerned with academic achievement as a function of specific and global measures of self-concept. They investigated the correlation between academic achievement and factor specific, as well as global, measures of self-concept for 314 fourth and sixth grade children. The Primary Self Concept Inventory was used to measure self-concept on six scales. A global self-concept score was derived by totaling the scores on the six scales. The two factor specific measures of self-concept that were most reflective of school performance i.e. success and student self, tended to show low positive correlations with achievement.

The global self-concept score and the four remaining specific measures i.e. physical size, emotional state, peer acceptance and helpfulness, tended to show no relationship to achievement. Mintz and Muller suggest that an area specific model of self-concept is more useful than a global or undifferentiated model.

The findings of the present study would support, in part, this

(20). Trowbridge, N. (1974) "Self concept and I.Q. in elementary school children" California J. of Educ. Research. 25, 37-49.
(21). Mintz, R. and Muller, D. (1977) "Academic achievement as a function of specific and global measures of self-concept." J. of Psychology. 97, 53-57.

suggestion of Mintz and Muller. In the present study, children in the different ability groups do not have significantly different global self-concept scores. However, significant differences were found when the specific subscales were investigated according to ability.

Three subscales produced no significant differences between the ability groups i.e. behavioural self, parental self and general school self. The latter scale produced similar results to those of Weinner and Weinner (1972) as reported on page 234. However, although the present study found no significant differences between the ability groups on the above specific scales it did find a significant difference on the social self-concept measure. A F ratio of 4.0 was significant at $p < .05$. Tables 60 and 61 indicate that children in the top ability group also had the highest mean social self-concept scores. The children in the lowest ability group produced the lowest mean scores on the social self scale. It is apparent that high ability children have favourable impressions of their social standing within their peer group. However, low ability children tend to perceive themselves socially in a negative way.

Another significant result was found when the academic self score was examined by ability grouping as reported in Tables 64 and 65. A F ratio of 10.5 was significant at $p < .001$. High ability children reported as a group not only negative attitudes towards their perceptions of academic self but also the lowest mean values. Furthermore those children in the lowest ability group saw themselves in a significantly more positive way and reported the highest academic self-concept mean score.

The present study did not consider whether the children in these ability groups were achievers or under achieving. It is possible that some bright children are underachieving and there is some evidence provided by Kanoy etal (1980) (22) that within a high ability sample of children the achievers had significantly higher self-concepts than underachievers. Evidence is reported by Karnes and Wherry (1981) (23) that the self-concepts of gifted children were significantly

(22). Kanoy, R.C., Johnson, B.W. and Kanoy, K.W. (1980) "Locus of control and self concept in achieving and underachieving bright elementary students" Psychology in the Schools. 17, 395-399.
(23). Karnes, F.A. and Wherry, J.N. (1981) "Self concepts of gifted students as measured by the Piers Harris Children's Self-Concept Scale" Psychological Reports. 49, 903-906.

higher than the self-concepts of less gifted children. However, it is important to consider the fact that the gifted children used in their sample were enrolled in a special programme for gifted children, and one would expect this to influence their academic self-conceptions in a positive way.

The above reasoning does not, of course, explain the high positive mean score obtained by the lowest ability group on the academic self scale. It could be argued that the extra attention often given to lower ability children and the careful grading of their work by teachers, so that they do achieve success at their own level, could combine together to enhance their academic self-concept. Nevertheless, their academic self-concepts are not a realistic appraisal of their academic standing.

The subscale results, overall, would suggest that children in the top ability group under-rate themselves academically, but see themselves socially in a positive way. Whereas children in the low ability group tend to over-rate themselves academically, but view themselves socially in a negative way.

The age and sex differences found in this three way analysis of variance shown in Tables 56 to 67 need to be interpreted with a great deal of caution. These results with a sample of 417 children divided into ability groups tend to mirror those of the two way analysis of variance for a sample of 742 when the effect of ability was not considered. The three way analysis of variance produced age and sex differences that were not as marked as those in the two way analysis. The differences were still significant though. However, due to the small numbers of first year boys and girls, and third year boys in ability group 3 further interpretation would be of doubtful value.

SUMMARY OF TABLES 56 TO 67.

1. No significant differences for ability grouping were found for global self, behavioural self, general school self and parental self-concept scores.

2. Significant differences for ability grouping were found for social self-concept. Ability group 1 had the highest mean social self-concept score, while ability group 3 had the lowest.

3. Significant differences for ability grouping were found for academic self scores. Ability group 1 had the lowest academic self-concept scores.

4. In general, high ability children tended to under-rate themselves academically, but saw themselves socially in a positive way.

5. In general, low ability children tended to over-rate their academic standing, but considered themselves socially in a very negative way.

RELATIVE ABILITY AND SELF-CONCEPT.

****

A sample of 390 children were used to form three relative ability groups as explained in Chapter 14, page 175. It is my belief that since children's self-concepts are formed in part by interaction with their peers, then dividing children into "relative" ability groups rather than "absolute" ability groups, as in the preceding section, would produce more meaningful results. Hence, children were placed into relative ability groups according to their E.P.V.T. score in comparison to the rest of their class. Thus, it is possible that a child who would be in ability group 2 on a percentile division of ability could find himself in relative ability group 1 or group 3 depending on the spread of ability within his class.

The results of the series of three way analyses of variance of relative ability, age and sex with respect to global self-concept score and the five factor scores are shown in the Tables 68 to 79.

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TABLE 68.

RESULTS OF THE 3 WAY ANOVAR OF GLOBAL SELF CONCEPT BY RELATIVE ABILITY, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS.	12499	6	2083	6.9	0.000
RELATIVE ABILITY (R.A.)	3186	2	1593	5.3	0.005
SEX	4598	1	4598	15.3	0.000
AGE	5026	3	1675	5.6	0.001
2 WAY INTERACTIONS	2703	11	246	0.8	0.60
R.A. SEX	409	2	205	0.7	0.50
R.A. AGE	1597	6	266	0.9	0.50
SEX AGE	544	3	181	0.6	0.60
3 WAY INTERACTIONS	2008	6	335	1.1	0.35
R.A. SEX AGE	2008	6	335	1.1	0.35
EXPLAINED	17211	23	748	2.5	0.000
RESIDUAL	110275	366	301		
TOTAL	127487	389	328		

TABLE 69. MEANS ON GLOBAL SELF CONCEPT FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 68.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
RELATIVE ABILITY 1.	1	114.3	34	111.9	17	116.6	17
MEAN = 110.7	2	108.1	39	103.4	24	115.5	15
N = 141	3	105.5	30	100.1	15	110.9	15
	4	114.4	38	113.0	21	116.1	17
RELATIVE ABILITY 2.	1	117.3	28	112.0	15	123.5	13
MEAN = 108.3	2	108.9	34	111.2	21	105.1	13
N = 122	3	99.7	23	94.8	14	107.2	9
	4	106.2	37	105.2	18	107.2	19
RELATIVE ABILITY 3.	1	107.2	28	100.9	16	115.6	12
MEAN = 104.1	2	103.7	38	99.7	22	109.1	16
N = 127	3	101.0	24	98.5	9	102.4	15
	4	104.1	37	100.6	20	108.1	17

TOTAL N = 390.

TABLE 70.

RESULTS OF THE 3 WAY ANOVAR OF BEHAVIOURAL SELF BY RELATIVE ABILITY, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	40.6	6	6.7	10.9	0.000
RELATIVE ABILITY(R.A.)	1.4	2	0.7	1.2	0.30
SEX	16.9	1	16.9	27.1	0.000
AGE	23.6	3	7.9	12.6	0.000
2 WAY INTERACTIONS	2.4	11	1.1	1.8	0.05
R.A. SEX	1.7	2	0.8	1.4	0.25
R.A. AGE	10.1	6	1.7	2.7	0.01
SEX AGE	0.3	3	0.1	0.2	0.90
3 WAY INTERACTIONS	2.4	6	0.4	0.6	0.70
R.A. SEX AGE	2.4	6	0.4	0.6	0.70
EXPLAINED	55.5	23	2.4	3.9	0.000
RESIDUAL	228.2	366	0.6		
TOTAL	283.7	389	0.7		

TABLE 71. MEANS ON BEHAVIOURAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 70.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
RELATIVE ABILITY 1	1	.29	34	.11	17	.46	17
MEAN = .06	2	-.03	39	-.32	24	.43	15
N = 141	3	-.17	30	-.33	15	-.02	15
	4	.14	38	-.01	21	.33	17
RELATIVE ABILITY 2	1	.81	28	.64	15	1.0	13
MEAN = .05	2	.07	34	.09	21	.04	13
N = 122	3	-.48	23	-.69	14	-.15	9
	4	-.23	37	-.32	18	-.14	19
RELATIVE ABILITY 3	1	.13	28	-.15	16	.51	12
MEAN = -.06	2	.07	38	-.21	22	.47	16
N = 127	3	-.30	24	-.60	9	-.13	15
	4	-.21	37	-.42	20	.04	17

TOTAL N = 390.

TABLE 72.

RESULTS OF THE 3 WAY ANOVAR OF SOCIAL SELF BY RELATIVE ABILITY, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	10.4	6	1.7	2.4	0.025
RELATIVE ABILITY (R.A.)	7.9	2	4.0	5.6	0.004
SEX	0.5	1	0.5	0.7	0.40
AGE	1.9	3	0.6	0.9	0.45
2 WAY INTERACTIONS	6.1	11	0.5	0.8	0.65
R.A. SEX	1.2	2	0.6	0.9	0.40
R.A. AGE	3.6	6	0.6	0.9	0.50
SEX AGE	1.5	3	0.5	0.7	0.55
3 WAY INTERACTIONS	1.9	6	0.3	0.4	0.80
R.A. SEX AGE	1.9	6	0.3	0.4	0.80
EXPLAINED	18.4	23	0.8	1.1	0.30
RESIDUAL	259.2	366	0.7		
TOTAL	277.6	389	0.7		

TABLE 73. MEANS ON SOCIAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 72.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
RELATIVE ABILITY 1	1	.16	34	.01	17	.31	17
MEAN = .16	2	.20	39	.18	24	.22	15
N = 141	3	.03	30	.00	15	.04	15
	4	.24	38	.33	21	.13	17
RELATIVE ABILITY 2	1	.12	28	.08	15	.16	13
MEAN = -.04	2	-.00	34	.20	21	-.35	13
N = 122	3	-.26	23	-.10	14	-.52	9
	4	-.07	37	-.02	18	-.11	19
RELATIVE ABILITY 3.	1	-.27	28	-.26	16	-.27	12
MEAN = -.17	2	.03	38	.03	22	.02	16
N = 127	3	-.16	24	.04	9	-.28	15
	4	-.32	37	-.33	20	-.31	17

TOTAL N = 390.

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TABLE 74.

RESULTS OF THE 3 WAY ANOVAR OF GENERAL SCHOOL SELF BY RELATIVE ABILITY, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	32.6	6	5.4	7.0	0.000
RELATIVE ABILITY (R.A.)	0.4	2	0.2	0.3	0.75
SEX	22.2	1	22.2	28.5	0.000
AGE	8.8	3	2.9	3.7	0.01
2 WAY INTERACTIONS	7.3	11	0.7	0.9	0.60
R.A. SEX	1.2	2	0.6	0.7	0.50
R.A. AGE	3.4	6	0.6	0.7	0.60
SEX AGE	2.3	3	0.8	1.0	0.40
3 WAY INTERACTIONS	1.9	6	0.3	0.4	0.90
R.A. SEX AGE	1.9	6	0.3	0.4	0.90
EXPLAINED	41.8	23	1.8	2.3	0.001
RESIDUAL	285.4	366	0.8		
TOTAL	327.2	389	0.8		

TABLE 75. MEANS ON GENERAL SCHOOL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 74.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
REL. ABILITY 1	1	-.13	34	.15	17	-.40	17
MEAN = .00	2	.34	39	.66	24	-.18	15
N = 141	3	.01	30	.38	15	-.36	15
	4	-.24	38	-.12	21	-.40	17
REL ABILITY 2	1	-.25	28	.01	15	-.55	13
MEAN = -.07	2	-.02	34	.03	21	-.11	13
N = 122	3	.10	23	.35	14	-.30	9
	4	-.07	37	-.03	16	-.11	19
REL.ABILITY 3	1	-.19	28	.16	16	-.65	12
MEAN = .00	2	.22	38	.38	22	-.01	16
N = 127	3	.13	24	.50	9	-.08	15
	4	-.16	37	.04	20	-.40	17

TOTAL N = 390.

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TABLE 76.

RESULTS OF THE 3 WAY ANOVAR OF ACADEMIC SELF BY RELATIVE ABILITY, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	30.6	6	5.1	6.4	0.000
RELATIVE ABILITY (R.A.)	24.2	2	12.1	15.1	0.000
SEX	0.1	1	0.1	0.1	0.75
AGE	6.7	3	2.3	2.8	0.04
2 WAY INTERACTIONS	7.2	11	0.6	0.8	0.60
R.A. SEX	2.0	2	1.0	1.3	0.25
R.A. AGE	3.1	6	0.5	0.6	0.70
SEX AGE	1.6	3	0.5	0.7	0.55
3 WAY INTERACTIONS	9.7	6	1.6	2.0	0.06
R.A. SEX AGE	9.7	6	1.6	2.0	0.06
EXPLAINED	47.5	23	2.1	2.6	0.000
RESIDUAL	292.3	366	0.8		
TOTAL	339.9	389	0.9		

TABLE 77. MEANS ON ACADEMIC SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 76.

		TOTAL SAMPLE		BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
RELATIVE ABILITY 1	1	-.44	34	-.67	17	-.20	17
MEAN = -.32	2	-.48	39	-.48	24	-.47	15
N = 141	3	.02	30	.07	15	-.03	15
	4	-.31	38	-.50	21	-.08	17
RELATIVE ABILITY 2	1	-.14	28	.27	15	-.62	13
MEAN = .04	2	-.09	34	-.26	21	.18	13
N = 122	3	.40	23	.59	14	.09	9
	4	.08	37	.01	18	.14	19
RELATIVE ABILITY 3	1	.40	28	.46	16	.33	12
MEAN = .27	2	.16	38	.16	22	.16	16
N = 127	3	.28	24	-.00	9	.45	15
	4	.28	37	.31	20	.24	17

TOTAL N = 390.

TABLE 78.

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RESULTS OF THE 3 WAY ANOVAR OF PARENTAL SELF BY RELATIVE ABILITY, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	13.7	6	2.3	3.2	0.005
RELATIVE ABILITY (R.A.)	1.4	2	0.7	0.9	0.40
SEX	4.6	1	4.6	6.4	0.01
AGE	7.6	3	2.5	3.6	0.01
2 WAY INTERACTIONS	4.4	11	0.4	0.6	0.90
R.A. SEX	0.1	2	0.1	0.1	0.90
R.A. AGE	3.0	6	0.5	0.7	0.60
SEX AGE	1.1	3	0.4	0.5	0.70
3 WAY INTERACTIONS	5.0	6	0.8	1.2	0.30
R.A. SEX AGE	5.0	6	0.8	1.2	0.30
EXPLAINED	23.1	23	1.0	1.4	0.10
RESIDUAL	260.8	366	0.7		
TOTAL	283.9	389	0.7		

TABLE 79. MEANS ON PARENTAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 78.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
RELATIVE ABILITY 1	1	.09	34	.15	17	.03	17
MEAN = -.01	2	-.12	39	-.20	24	.02	15
N = 141	3	-.17	30	-.42	15	.07	15
	4	.13	38	-.03	21	.31	17
RELATIVE ABILITY 2	1	.25	28	.25	15	.25	13
MEAN = .03	2	.06	34	.13	21	-.05	13
N = 122	3	-.21	23	-.48	14	.20	9
	4	-.03	37	-.20	18	.14	19
REL. ABILITY 3	1	.15	28	-.13	16	.53	12
MEAN = -.11	2	-.37	38	-.47	22	-.23	16
N = 127	3	-.24	24	-.24	9	-.24	15
	4	.03	37	-.04	20	.11	17

TOTAL N = 390.

RESULTS AND DISCUSSION.

The results shown in Tables 68 to 79 indicate that the relative ability grouping of the children in the sample can produce larger and more significant differences than simple ability grouping.

A F ratio of 5.3 and $p < .005$ in Table 68 shows that significant differences in global self-concept scores were obtained between different relative ability groups. From Table 69 it can be seen that children in the highest relative ability group have the highest mean global self-concept score. This difference was present for "ability grouping" as shown in Table 56, but it was not statistically significant. Thus, the use of relative ability in contrast to "absolute" ability produces a larger difference in mean global self-concept scores between the ability groups and one that attains significance.

Consideration of social self scores in Tables 72 and 73 also shows that analysis by relative ability produces a larger and more significant effect than simply using "ability". A F ratio of 5.6 with $p < .005$ indicates that children in relative ability group 1 have the highest mean social self scores, while the lowest social self scores are held by children in the lowest relative ability group.

For academic self-concept, the use of relative ability produces a higher F ratio than for ability grouping i.e. $F = 15.1$, with $p < .001$. Tables 76 and 71 show that the children in the highest relative ability group have the lowest academic self scores, and the children in the lowest relative ability group have the highest mean academic self scores.

Relative ability grouping produced no significant differences with regard to behavioural self, general school self or parental self-concept scores. These findings are similar to those found using ability grouping.

Overall, the age and sex differences in the results for the three way analysis of variance for N = 390 tended to reflect those of the two way analysis of variance for N = 742. However, differences are not as marked in the three way analysis as they were in the two way analysis, although both were still significant.

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Minor changes occur in the age differences for the general school self scores when the effect of relative ability is considered. For example, although the lowest general school self scores are still obtained by the first and fourth years, the highest general school self scores tend to occur with the second year and not with the third year as indicated in the two way analysis. This is particularly clear for relative ability group 1 in Table 75.

The results for academic self scores in Table 76 and 77 indicate that for relative ability group 3 the general trend shown in the two way analysis i.e. Tables 28 and 29, does not follow. The latter show that academic self-concept scores increase from first to third year. In the three way analysis, this trend is reflected for relative ability groups 1 and 2, but not for the children in relative ability group 3. In this group, the first year children produce the highest scores.

There are no research findings, to my knowledge, to compare the results of the effects of relative ability with. However, this study does show that the use of relative ability is feasible when dealing with self-concept research. Furthermore, larger and more significant results are found when grouping is based upon ability relative to the rest of the class and not simply on ability without regard to the ability distribution of the class.

SUMMARY OF TABLES 68 TO 79.

1. No significant differences for children in relative ability groups were found with respect to behavioural self, general school self and parental self scores.

2. Significant differences for relative ability groups were found for global self-concept scores. Relative ability group 1 had the highest mean global self-concept scores, while relative ability group 3 had the lowest.

3. Significant differences for relative ability groups were found for social self scores. The highest relative ability group had the highest mean social self score, while the lowest relative ability group had the lowest mean social self score.

4. Significant differences for the relative ability groups were found for academic self scores. The highest relative ability group had the lowest mean academic self scores, while the lowest relative ability group had the highest mean academic self score.

5. It was considered feasible that "relative" ability rather than "absolute" ability would be a useful variable for future self-concept research.

EFFECT OF FAMILY VARIABLES ON SELF-CONCEPT.

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A sample of 706 children were used to study the effects of the number of siblings in a family, and the ordinal position of the child in a family, on the global self-concept and five specific self-concept scores.

The results of the series of three way analyses of variance of age, sex and number of siblings with respect to global self and factor specific scores are shown in Tables 80-91.

The results of the series of three way analyses of variance of age, sex and ordinal position in family with respect to global self-concept and the five specific self-concept scores are shown in Tables 92 to 103.

TABLE 80.

RESULTS OF THE 3 WAY ANOVAR OF GLOBAL SELF-CONCEPT BY SIBLINGS, SEX, AGE. **********

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	18336	7	2619	8.8	0.000
SIBLINGS	814	3	271	0.9	0.40
SEX	10338	1	10338	34.7	0.000
AGE	8139	3	2713	9.1	0.000
2 WAY INTERACTIONS	4207	15	280	0.9	0.50
SIBLINGS SEX	492	3	164	0.6	0.65
SIBLINGS AGE	1403	9	156	0.5	0.85
SEX AGE	1957	3	653	2.2	0.09
3 WAY INTERACTIONS	1466	9	163	0.5	0.85
SIBS. SEX AGE	1466	9	163	0.5	0.85
EXPLAINED	24010	31	774	2.6	0.000
RESIDUAL	200644	674	298		
TOTAL	224653	705	319		

TABLE 81. MEANS ON GLOBAL SELF-CONCEPT FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 80.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SIBLINGS 1 MEAN = 109.7 N = 64	1	118.0	15	106.7	7	127.9	8
	2	105.6	19	104.5	11	107.1	8
	3	106.6	15	96.3	6	113.4	9
	4	109.5	15	101	6	115.1	9
SIBLINGS 2 MEAN = 107.9 N = 351	1	111.3	89	105.4	51	119.1	38
	2	106.3	99	102.9	58	111.0	41
	3	102.6	66	97.5	31	107.1	35
	4	110.3	97	109.5	49	111.1	48
SIBLINGS 3 MEAN = 106.7 N = 182	1	113.6	36	111.5	19	116.0	17
	2	108.1	48	103.9	27	113.5	21
	3	100.6	41	96.4	20	104.6	21
	4	105.5	57	104.2	27	106.6	30
SIBLINGS 4 MEAN = 109.2 N = 109	1	112.1	22	108.2	13	117.7	9
	2	108.8	27	105.2	19	117.5	8
	3	105.4	20	102.0	10	108.8	10
	4	109.6	40	109.2	28	110.7	12

TOTAL N = 706.

TABLE 82.

RESULTS OF THE 3 WAY ANOVAR OF BEHAVIOURAL SELF BY SIBLINGS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	78.7	7	11.2	17.6	0.000
SIBLINGS	2.3	3	0.8	1.2	0.30
SEX	46.6	1	46.6	73.1	0.000
AGE	34.1	3	11.4	17.8	0.000
2 WAY INTERACTIONS	11.2	15	0.7	1.2	0.30
SIBLINGS SEX	1.2	3	0.4	0.7	0.60
SIBLINGS AGE	4.4	9	0.5	0.8	0.65
SEX AGE	4.9	3	1.6	2.6	0.05
3 WAY INTERACTIONS	2.9	9	0.3	0.5	0.90
SIBLINGS SEX AGE	2.9	9	0.3	0.5	0.90
EXPLAINED	92.7	31	3.0	4.7	0.000
RESIDUAL	430.0	674	0.6		
TOTAL	522.7	705	0.7		

TABLE 83. MEANS ON BEHAVIOURAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 82.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SIBLINGS 1.	1	.65	15	.47	7	.81	8
MEAN = .16	2	-.07	19	-.33	11	.28	8
N = 64	3	.09	15	-.21	6	.29	9
	4	.01	15	-.31	6	.23	9
SIBLINGS 2.	1	.30	89	-.03	51	.75	38
MEAN = .01	2	-.001	99	-.25	58	.35	41
N = 351	3	-.38	66	-.81	31	.004	35
	4	-.00	97	-.13	49	.13	48
SIBLINGS 3.	1	.33	36	.06	19	.63	17
MEAN = -.05	2	.06	48	-.29	27	.51	21
N = 182	3	-.37	41	-.66	20	-.10	21
	4	-.16	57	-.25	27	-.08	30
SIBLINGS 4.	1	.24	22	.03	13	.53	9
MEAN = .03	2	.02	27	-.11	19	.32	8
N = 109	3	-.09	20	-.13	10	-.06	10
	4	-.00	40	-.08	28	.17	12

TOTAL = 706.

TABLE 84.

RESULTS OF THE 3 WAY ANOVAR OF SOCIAL SELF BY SIBLINGS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	4.2	7	0.6	0.8	0.60
SIBLINGS	0.9	3	0.3	0.4	0.75
SEX	1.5	1	1.4	1.9	0.12
AGE	1.5	3	0.5	0.6	0.60
2 WAY INTERACTIONS	13.7	15	0.9	1.2	0.30
SIBLINGS SEX	5.5	3	1.8	2.4	0.06
SIBLINGS AGE	8.1	9	0.9	1.2	0.30
SEX AGE	0.0	3	0.0	0.0	0.99
3 WAY INTERACTIONS	12.3	9	1.4	1.8	0.06
SIBLINGS SEX AGE	12.3	9	1.4	1.8	0.06
EXPLAINED	30.2	31	1.0	1.3	0.15
RESIDUAL	513.7	674	0.8		
TOTAL	543.9	705	0.8		

TABLE 85. MEANS ON SOCIAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 84.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SIBLINGS 1 MEAN = .06 N = 64	1	.06	15	-.44	7	.49	8
	2	.13	19	.19	11	.04	8
	3	-.08	15	-.57	6	.25	9
	4	.10	15	-.17	6	.28	9
SIBLINGS 2 MEAN = .02 N = 351	1	.04	89	.04	51	.04	38
	2	-.03	99	.02	58	-.10	41
	3	.02	66	.27	31	-.19	35
	4	.04	97	.09	49	-.00	48
SIBLINGS 3 MEAN = -.06 N = 182	1	.07	36	.40	19	-.30	17
	2	.17	48	.21	27	.11	21
	3	-.20	41	-.20	20	-.20	21
	4	-.24	57	-.24	27	-.24	30
SIBLINGS 4 MEAN = .004 N = 109	1	-.01	22	.00	13	-.03	9
	2	-.04	27	-.15	19	.23	8
	3	-.30	20	-.41	10	-.19	10
	4	.20	40	.36	28	-.20	12

TOTAL N = 706

TABLE 86.

RESULTS OF THE 3 WAY ANOVAR OF GENERAL SCHOOL SELF BY SIBLINGS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	56.2	7	8.3	10.9	0.000
SIBLINGS	4.1	3	1.4	1.9	0.14
SEX	40.9	1	40.9	56.0	0.000
AGE	12.6	3	4.2	5.7	0.001
2 WAY INTERACTIONS	12.1	15	0.8	1.1	0.35
SIBLINGS SEX	1.6	3	0.5	0.7	0.50
SIBLINGS AGE	4.5	9	0.5	0.7	0.70
SEX AGE	6.1	3	2.0	2.8	0.04
3 WAY INTERACTIONS	5.5	9	0.6	0.8	0.60
SIBLINGS SEX AGE	5.5	9	0.6	0.8	0.60
EXPLAINED	73.8	31	2.4	3.3	0.000
RESIDUAL	492.5	674	0.7		
TOTAL	566.3	705	0.8		

TABLE 87. MEANS ON GENERAL SCHOOL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 86.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SIBLINGS 1	1	-.33	15	.23	7	-.83	8
MEAN = .02	2	.34	19	.25	11	.47	8
N = 64	3	.11	15	.76	6	-.32	9
	4	-.14	15	.05	6	-.26	9
SIBLINGS 2	1	-.04	89	.28	51	-.47	38
MEAN = .02	2	.13	99	.34	58	-.17	41
N = 351	3	.24	66	.45	31	.06	35
	4	-.19	97	-.07	49	-.31	48
SIBLINGS 3	1	-.20	36	.16	19	-.61	17
MEAN = -.00	2	.18	48	.37	27	-.07	21
N = 182	3	.11	41	.27	20	-.05	21
	4	-.11	57	-.05	27	-.16	30
SIBLINGS 4	1	-.27	22	-.02	13	-.62	9
MEAN = -.15	2	-.10	27	.18	19	-.77	8
N = 109	3	-.19	20	.25	10	-.64	10
	4	-.10	40	.03	28	-.41	12

TOTAL N = 706

TABLE 88.

RESULTS OF THE 3 WAY ANOVER OF ACADEMIC SELF BY SIBLINGS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	14.3	7	2.0	2.7	0.009
SIBLINGS	2.0	3	0.7	0.9	0.50
SEX	0.2	1	0.2	0.2	0.65
AGE	11.3	3	3.7	4.9	0.002
2 WAY INTERACTIONS	13.4	15	0.9	1.2	0.30
SIBLINGS SEX	7.4	3	2.5	3.3	0.02
SIBLINGS AGE	2.6	9	0.3	0.4	0.90
SEX AGE	2.7	3	0.9	1.2	0.30
3 WAY INTERACTIONS	6.5	9	0.7	0.9	0.50
SIBLINGS SEX AGE	6.5	9	0.7	0.9	0.50
EXPLAINED	34.1	31	1.1	1.4	0.05
RESIDUAL	511.1	674	0.7		
TOTAL	545.1	705	0.8		

TABLE 89. MEANS ON ACADEMIC SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 88.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SIBLINGS 1	1	.03	15	.65	7	-.51	8
MEAN = .14	2	.16	19	.32	11	-.05	8
N = 64	3	.34	15	.74	6	.63	9
	4	-.00	15	.17	6	-.11	9
SIBLINGS 2	1	-.16	89	-.11	51	-.23	38
MEAN = -.05	2	-.10	99	-.13	58	-.06	41
N = 351	3	.15	66	.14	31	.16	35
	4	-.04	97	-.29	49	.21	48
SIBLINGS 3	1	-.23	36	-.39	19	-.06	17
MEAN = .04	2	-.10	48	-.08	27	-.13	21
N = 182	3	.39	41	.40	20	.37	21
	4	.10	57	.18	27	.03	30
SIBINGS 4	1	-.02	22	.08	13	-.17	9
MEAN = -.03	2	-.12	27	-.22	19	.11	8
N = 109	3	.11	20	.04	10	.19	10
	4	-.05	40	-.12	28	.11	12

TOTAL N = 706.

TABLE 90.

RESULTS OF THE 3 WAY ANOVAR OF PARENTAL SELF BY SIBLINGS, SEX, AGE. *********

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	19.2	7	2.7	3.9	0.000
SIBLINGS	2.5	3	0.8	1.2	0.30
SEX	10.4	1	10.4	14.9	0.000
AGE	6.4	3	2.1	3.1	0.03
2 WAY INTERACTIONS	5.9	15	0.4	0.6	0.90
SIBLINGS SEX	1.2	3	0.4	0.6	0.60
SIBLINGS AGE	3.8	9	0.4	0.6	0.80
SEX AGE	0.5	3	0.2	0.2	0.90
3 WAY INTERACTIONS	4.6	9	0.5	0.7	0.70
SIBLINGS SEX AGE	4.6	9	0.5	0.7	0.70
EXPLAINED	29.7	31	0.9	1.4	0.09
RESIDUAL	471.3	674	0.7		
TOTAL	500.9	705	0.7		

TABLE 91. MEANS ON PARENTAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 90.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SIBLINGS 1	1	.51	15	.39	7	.61	8
MEAN = .20	2	.14	19	.20	11	.07	8
N = 64	3	.20	15	.33	6	.11	9
	4	-.05	15	-.57	6	.29	9
SIBLINGS 2	1	.04	89	-.13	51	.26	38
MEAN = -.02	2	-.13	99	-.25	58	.03	41
N = 351	3	-.13	66	-.40	31	.11	35
	4	.11	97	.02	49	.20	48
SIBLINGS 3	1	.22	36	.19	19	.25	17
MEAN = -.01	2	-.06	48	-.15	27	.05	21
N = 182	3	-.15	41	-.31	20	.01	21
	4	-.01	57	.01	27	-.03	30
SIBLINGS 4	1	.15	22	.02	13	.33	9
MEAN = -.00	2	.01	27	-.10	19	.27	8
N = 109	3	-.16	20	-.19	10	-.14	10
	4	-.02	40	-.09	28	.16	12

TOTAL N = 706.

TABLE 92.

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RESULTS OF THE 3 WAY ANOVAR OF GLOBAL SELF CONCEPT BY FAMILY POSITION, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	17985	7	2569	8.8	0.000
FAMILY POSITION (F.P.)	463	3	154	0.5	0.65
SEX	10144	1	10144	34.6	0.000
AGE	8410	3	2803	9.6	0.000
2 WAY INTERACTIONS	5025	15	335	1.1	0.30
F.P. SEX	597	3	199	0.7	0.55
F.P. AGE	2291	9	255	0.9	0.55
SEX AGE	2218	3	739	2.5	0.05
3 WAY INTERACTIONS	4206	9	467	1.6	0.10
F.P. SEX AGE	4206	9	467	1.6	0.10
EXPLAINED	27217	31	878	2.9	0.000
RESIDUAL	197436	674	292		
TOTAL	224653	705	318		

TABLE 93. MEANS ON GLOBAL SELF CONCEPT FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 92.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
FAM. POSITION 1	1	112.5	68	105.8	37	120.5	31
MEAN = 108.3	2	105.6	89	103.7	50	108.2	39
N = 315	3	104.2	66	96.3	32	111.8	34
	4	110.6	92	111.5	46	109.7	46
FAM. POSITION 2	1	113.0	65	107.3	35	119.7	30
MEAN = 107.7	2	108.5	66	103.4	40	116.4	26
N = 248	3	101.3	47	100.3	22	102.2	25
	4	106.4	70	100.9	34	111.6	36
FAM. POSITION 3	1	111.5	20	111.1	13	112.4	7
MEAN = 106.7	2	103.6	23	100.5	15	109.4	8
N = 86	3	100.4	16	93.3	8	107.5	8
	4	109.5	27	111.5	15	107	12
FAM. POSITION 4	1	111.6	9	107.2	5	117	4
MEAN = 109	2	113.8	15	109.9	10	121.8	5
N = 57	3	104	13	102.8	5	104.7	8
	4	107.9	20	107.4	15	109.4	5

TOTAL N = 706.

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TABLE 94.

RESULTS OF THE 3 WAY ANOVAR OF BEHAVIOURAL SELF BY FAMILY POSITION, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	78.0	7	11.1	17.8	0.000
FAMILY POSITION(F.P.)	1.7	3	0.6	0.9	0.45
SEX	46.3	1	46.3	73.8	0.000
AGE	34.9	3	11.7	18.6	0.000
2 WAY INTERACTIONS	15.3	15	1.0	1.6	0.06
F.P. SEX	3.4	3	1.1	1.8	0.15
F.P. AGE	6.8	9	0.8	1.2	0.30
SEX AGE	6.0	3	2.0	3.2	0.02
3 WAY INTERACTIONS	6.6	9	0.7	1.2	0.30
F.P. SEX AGE	6.6	9	0.7	1.2	0.30
EXPLAINED	99.8	31	3.2	5.1	0.000
RESIDUAL	422.9	674	0.6		
TOTAL	522.7	705	0.7		

TABLE 95. MEANS ON BEHAVIOURAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 94.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
FAM. POSITION 1. MEAN = .05 N = 315	1	.31	68	.02	37	.66	31
	2	.02	89	-.25	50	.38	39
	3	-.23	66	-.67	32	.18	34
	4	.08	92	.00	46	.16	46
FAM. POSITION 2. MEAN = -.03 N = 248	1	.41	65	.05	35	.82	30
	2	-.05	66	-.36	40	.41	26
	3	-.45	47	-.66	22	-.26	25
	4	-.14	70	-.41	34	.10	36
FAM. POSITION 3. MEAN = -.02 N = 86	1	.07	20	-.06	13	.33	7
	2	-.02	23	-.17	15	.28	8
	3	-.11	16	-.58	8	.36	8
	4	-.04	27	.14	15	-.27	12
FAM. POSITION 4. MEAN = -.01 N = 57	1	.50	9	.36	5	.67	4
	2	.24	15	.16	10	.40	5
	3	-.25	13	-.14	5	-.32	8
	4	-.28	20	-.36	15	-.00	5

TOTAL N = 706.

TABLE 96.

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RESULTS OF THE 3 WAY ANOVAR OF SOCIAL SELF BY FAMILY POSITION, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	3.6	7	0.5	0.7	0.70
FAMILY POSITION (F.P.)	0.4	3	0.1	0.2	0.90
SEX	1.3	1	1.3	1.7	0.20
AGE	1.6	3	0.5	0.7	0.50
2 WAY INTERACTIONS	6.6	15	0.4	0.6	0.90
F.P. SEX	0.2	3	0.1	0.1	0.90
F.P. AGE	6.0	9	0.7	0.9	0.55
SEX AGE	0.1	3	0.0	0.1	0.95
3 WAY INTERACTIONS	12.3	9	1.4	1.8	0.07
F.P. SEX AGE	12.3	9	1.4	1.8	0.07
EXPLAINED	22.5	31	0.7	0.9	0.55
RESIDUAL	521.4	674	0.8		
TOTAL	543.9	705	0.8		

TABLE 97. MEANS ON SOCIAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 96.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
FAMILY POSITION 1. MEAN = -.00 N = 315	1	.00	68	-.09	37	.12	31
	2	.00	89	.05	50	-.06	39
	3	-.02	66	.03	32	-.06	34
	4	-.01	92	.06	46	-.08	46
FAM. POSITION 2. MEAN = -.02 N = 248	1	.02	65	.12	35	-.10	30
	2	.07	66	.15	40	-.05	26
	3	-.12	47	-.02	22	-.21	25
	4	-.08	70	-.14	34	-.01	36
FAM. POSITION 3. MEAN = .03 N = 86	1	.38	20	.67	13	-.16	7
	2	-.02	23	-.21	15	.33	8
	3	-.31	16	-.55	8	-.07	8
	4	.00	27	.16	15	-.19	12
FAM. POSITION 4. MEAN = .06 N = 57	1	-.25	9	-.59	5	.17	4
	2	.14	15	.10	10	.23	5
	3	-.15	13	.11	5	-.32	8
	4	.29	20	.44	15	-.15	5

TOTAL N = 706.

TABLE 98.

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RESULTS OF THE 3 WAY ANOVAR OF GENERAL SCHOOL SELF BY FAMILY POSITION, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	54.8	7	7.8	10.8	0.000
FAMILY POSITION (F.P.)	2.7	3	0.9	1.2	0.30
SEX	39.5	1	39.5	54.6	0.000
AGE	13.4	3	4.5	6.2	0.000
2 WAY INTERACTIONS	14.8	15	1.0	1.4	0.16
F.P. SEX	3.7	3	1.2	1.7	0.16
F.P. AGE	5.3	9	0.6	0.8	0.60
SEX AGE	5.9	3	1.9	2.7	0.04
3 WAY INTERACTIONS	8.5	9	0.9	1.3	0.20
F.P. SEX AGE	8.5	9	0.9	1.3	0.20
EXPLAINED	78.1	31	2.5	3.5	0.000
RESIDUAL	488.3	674	0.7		
TOTAL	566.3	705	0.8		

TABLE 99. MEANS ON GENERAL SCHOOL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 98.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
FAM. POSITION 1	1	-.20	68	.15	37	-.63	31
MEAN = -.02	2	.22	89	.26	50	.17	39
N = 315	3	.13	66	.49	32	-.21	34
	4	-.24	92	-.22	46	-.25	46
FAM. POSITION 2	1	-.06	65	.31	35	-.50	30
MEAN = .01	2	.04	66	.41	40	-.53	26
N = 248	3	.16	47	.31	22	.04	25
	4	-.05	70	.22	34	-.31	36
FAM. POSITION 3	1	-.10	20	.15	13	-.58	7
MEAN = .06	2	.24	23	.36	15	.01	8
N = 86	3	.32	16	.35	8	.28	8
	4	-.14	27	-.04	15	-.26	12
FAM. POSITION 3	1	-.21	9	.01	5	-.48	4
MEAN = -.17	2	-.16	15	.14	10	-.75	5
N = 57	3	-.23	13	.25	5	-.54	8
	4	-.11	20	-.03	15	-.34	5

TOTAL N = 706.

TABLE 100.

RESULTS OF THE 3 WAY ANOVAR OF ACADEMIC SELF BY FAMILY POSITION, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	12.4	7	1.8	2.3	0.02
FAMILY POSITION (F.P.)	0.1	3	0.0	0.1	0.95
SEX	0.2	1	0.2	0.3	0.60
AGE	11.7	3	3.9	5.2	0.002
2 WAY INTERACTIONS	18.7	15	1.2	1.6	0.05
F.P. SEX	1.6	3	0.5	0.7	0.50
F.P. AGE	13.4	9	1.5	2.0	0.04
SEX AGE	3.2	3	1.1	1.4	0.20
3 WAY INTERACTIONS	8.1	9	0.9	1.2	0.30
F.P. SEX AGE	8.1	9	0.9	1.2	0.30
EXPLAINED	39.1	31	1.3	1.7	0.01
RESIDUAL	506.0	674	0.75		
TOTAL	545.1	705	0.77		

TABLE 101. MEANS ON ACADEMIC SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 100.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
FAMILY POSITION 1	1	-.09	68	.14	37	-.36	31
MEAN = -.01	2	-.00	89	.04	50	-.06	39
N = 315	3	.16	66	.33	32	.01	34
	4	-.10	92	-.31	46	.12	46
FAM. POSITION 2	1	-.14	65	-.17	35	-.11	30
MEAN = -.00	2	-.24	66	-.30	40	-.14	26
N = 248	3	.25	47	.10	22	.37	25
	4	.19	70	.19	34	.18	36
FAM. POSITION 3	1	-.50	20	-.62	13	-.24	7
MEAN = -.01	2	.23	23	.18	15	.32	8
N = 86	3	.42	16	.44	8	.41	8
	4	-.12	27	-.12	15	-.12	12
FAM. POSITION 4	1	.31	9	.33	5	.28	4
MEAN = .03	2	-.27	15	-.29	10	-.24	5
N = 57	3	.31	13	.18	5	.39	8
	4	-.04	20	-.11	15	.18	5

TOTAL N = 706.

TABLE 102.

RESULTS OF THE 3 WAY ANOVAR OF PARENTAL SELF BY FAMILY POSITION, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	17.9	7	2.6	3.7	0.001
FAMILY POSITION	1.2	3	0.4	0.6	0.60
SEX	10.6	1	10.6	15.3	0.000
AGE	6.1	3	2.0	2.9	0.03
2 WAY INTERACTIONS	5.8	15	0.4	0.6	0.90
F.P. SEX	1.9	3	0.6	0.9	0.40
F.P. AGE	3.4	9	0.4	0.5	0.80
SEX AGE	0.7	3	0.2	0.3	0.80
3 WAY INTERACTIONS	8.3	9	0.9	1.3	0.20
F.P. SEX AGE	8.3	9	0.9	1.3	0.20
EXPLAINED	31.9	31	1.0	1.5	0.04
RESIDUAL	469.0	674	0.7		
TOTAL	500.1	705	0.7		

TABLE 103. MEANS ON PARENTAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 102.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
FAM. POSITION 1	1	.14	68	.07	37	.22	31
MEAN = -.02	2	-.11	89	-.11	50	-.11	39
N = 315	3	-.09	66	-.40	32	.19	34
	4	.01	92	.00	46	.01	46
FAM. POS. 2	1	.19	65	-.05	35	.47	30
MEAN = .06	2	-.01	66	-.20	40	.28	26
N = 248	3	-.11	47	-.08	22	-.13	25
	4	.12	70	-.12	34	.34	36
FAM. POS. 3	1	-.09	20	-.10	13	-.06	7
MEAN = -.08	2	-.23	23	-.31	15	-.08	8
N = 86	3	-.05	16	-.38	8	.29	8
	4	.04	27	.12	15	-.05	12
FAM. POS. 4	1	.25	9	.09	5	.45	4
MEAN = .00	2	.20	15	.04	10	.53	5
N = 57	3	-.24	13	-.28	5	-.22	8
	4	-.10	20	-.18	15	.13	5

TOTAL N = 706.

****

RESULTS AND DISCUSSION.

From Tables 80 to 103 it can be seen that no significant differences are found for either of the family variables with regard to mean global self-concept and the five subscale scores.

Thus, the size of the family has no significant effect on any of the various self-concept scores. Children who are the only child in the family produce no significant differences in their mean self-concept scores than do children in larger families. Furthermore, the ordinal position of the child in the family for this sample produced no significant results for any of the self-concept scales.

The age and sex differences found were similar to those obtained in the two way analysis of variance as discussed in Chapter 15.

It was noted that some of the cells in the tables for number of siblings and family position contained only small numbers, for example: few boys and girls in sibling group 1, few girls in sibling group 4, few boys and girls in family position 4 group and few girls in family position 3. This could effect the interpretation of the results. However, since no significant differences were found in the group means the problem was resolved.

There is sufficient evidence in past research to illustrate the importance of parental personality, family interaction, parental attitudes and parental self-concepts on children's self-concepts. The research on the number of siblings in a family and the ordinal position of a child in a family and their effects on self-concept are not so well documented. Some studies will be briefly summarised below to give an indication of the results presently available.

Rosenberg (1965) (24) in his study of adolescents considers that it is less important whether one is first or second or third in the family than whether one has any siblings at all. This is not reflected in the present study. In his investigation Rosenberg found that whereas 51% of the only children had high self-esteem only 44% of children with siblings had high self-esteem. However, no evidence of significance was published.

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(24). Rosenberg, M. (1965) Society and the Adolescent Self-Image Princeton University Press: Princeton, New Jersey.

Contrary to the findings of this study Sears (1970) (25), in his sample of 84 girls and 75 boys in the sixth grade, found that for both sexes high self-concepts were significantly associated with a small family and early ordinal position. Coopersmith (1967) (26) also demonstrated that birth order has a significant effect on the self-concept.

However, using older students Nystul (1974) (27) found that birth order did not have a significant effect on self-concept for the 168 university students in his sample. Later, Nystul (1976) (28) divided 180 subjects into eight groups that represented the subjects' birth order and family size. These 18 to 25 year old students were given the Tennessee Self Concept Scale (T.S.C.S.). He found no difference occurred between mean scores of first borns and later borns for any other the T.S.C.S. scores, and no difference was found between the T.S.C.S. scores of subjects from two, three, four, five or more sibling families. These subjects are far outside the age range of the sample in the present study, but the results are similar.

These inconsistent results could lead to the suggestion that birth order and family size is of secondary importance in assessing self-concepts. More value may perhaps be gained by examining family structure, sex of siblings, number and closeness in age of siblings. The results of Kidwell (1982) (29) indicate that middleborns have significantly lower self esteem than first or last borns and that their self esteem is effected not only by the average age spacing of their immediately adjacent sibling but also the sex of the siblings. Her study, however, was with tenth grade boys only. It does serve to illustrate the point that the effect of the family is more complicated than previous research would suggest.

SUMMARY OF TABLES 80 TO 103.

1. No significant differences were found in any of the self-concept

(25). Sears, R.R. (1970) "Relation of early socialization experiences to self concepts and gender role in middle childhood." Child Development. 41, 267-289.
(26). Coopersmith, S. (1967) The Antecedents of Self Esteem. W.H. Freeman Co; San Francisco.
(27). Nystul, M.S. (1974) "The effects of birth order and sex on self-concept." J. Individual Psychol. 30, 211-215.
(28). Nystul, M.S. (1976) "The effects of birth order and family size on self-concept" Australian Psychologist. 11, 197-201.
(29). Kidwell, J.S. (1982) "The neglected birth order: middleborns." J. Marriage and the Family. 44, 225-235.

scores for the effect of ordinal family position or number of siblings.

2. The effect of family variables on self-concept is more complicated than a simple consideration of birth order and family size.

CONCLUSION.

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This chapter has reported the effect of selected variables on the self-concept scores of junior aged children. Since the findings have been briefly summarised in each subsection, it is sufficient to mention here only two general points. Firstly, the advantage in considering the self-concept as factor specific in nature has been clearly illustrated. Secondly, the use of relative ability groups, as considered in this study, have produced more positive results than simply using the normal grouping procedures of previous studies.

The next and final chapter will summarise the findings of Chapter 15 and 16. In addition, it will consider the conclusions and recommendations of the present study.

CHAPTER SIXTEEN. DATA ANALYSIS: THE EFFECT OF SELECTED VARIABLES ON SELF-CONCEPT.

****

INTRODUCTION.

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The global self-concept score and the five factor scores obtained for the sample of 742 junior school children were subjected to a series of three way analyses of variance for age, sex and the following variables in turn:

1. Social Class.
2. Peer Status.
3. Ability Group.
4. Relative Ability Group.
5. Number of Siblings in Family.
6. Family Position.

The number of children in each analysis varied according to the sub samples obtained for each variable. The effect of age and sex has already been discussed in Chapter 15 and to a large extent these results are merely repeated in the series of three way analyses of variance. They were included again to examine their influence when the above variables were considered in relation to self-concept.

Some exceptions to the more general age and sex findings of Chapter 15 were found in the three way analysis. However, the major discussion will centre upon the effect of the variables with the self-concept scores. Age and sex differences will only be mentioned when they are different to those obtained in Chapter 15. The rationale for including the tables for the three way analyses of variance in the main part of the study, and not in an appendix, is the same as for the inclusion of the two way analysis of variance results i.e. they are central to the findings of the present study.

EFFECT OF SOCIAL CLASS ON SELF-CONCEPT.

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A sample of 581 children were used to form the three social class groups as explained in Chapter 14, page 179.The results of the three

way analyses of variance of age, sex and social class with the various self-concept measures are shown in the Tables 32 to 43.

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TABLE 32.

RESULTS OF THE 3 WAY ANOVAR OF GLOBAL SELF CONCEPT BY SOCIAL CLASS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	18098	6	3016	10.4	0.000
SOCIAL CLASS (S.C.)	783	2	391	1.3	0.25
SEX	7290	1	7290	25.2	0.000
AGE	10712	3	3570	12.3	0.000
2 WAY INTERACTIONS	3629	11	330	1.1	0.30
S.C. SEX	362	2	181	0.6	0.50
S.C. AGE	1658	6	276	0.9	0.45
SEX AGE	1372	3	457	1.6	0.20
3 WAY INTERACTIONS	4128	6	688	2.4	0.03
S.C. SEX AGE	4128	6	688	2.4	0.03
EXPLAINED	25855	23	1124	3.9	0.000
RESIDUAL	161192	557	289		
TOTAL	187048	580	322		

TABLE 33 MEANS ON GLOBAL SELF-CONCEPT FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 32.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SOCIAL CLASS 1	1	113.3	25	105.9	12	120.1	13
	2	109.6	22	107.9	15	113.4	7
MEAN = 110.5	3	101.4	22	104.4	12	97.9	10
N = 104	4	114.7	35	113.8	21	116.2	14
SOCIAL CLASS 2	1	113.4	52	108.6	31	120.5	21
	2	108.8	83	105.1	51	114.6	32
MEAN = 107.6	3	102.7	81	96.8	39	108.1	42
N = 334	4	107.5	118	107.0	61	108.1	57
SOCIAL CLASS 3	1	118.7	27	120.7	16	115.8	11
	2	113.2	40	108.2	18	117.4	22
MEAN = 110.3	3	102.1	38	91.0	17	111.1	21
N = 143	4	109.5	38	104.7	18	113.9	20

TOTAL N = 581

****

TABLE 34.

RESULTS OF THE 3 WAY ANOVAR OF BEHAVIOURAL SELF BY SOCIAL CLASS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	68.6	6	11.4	18.0	0.000
SOCIAL CLASS (S.C.)	0.9	2	0.5	0.7	0.50
SEX	32.9	1	32.9	52.0	0.000
AGE	37.7	3	12.6	19.9	0.000
2 WAY INTERACTIONS	6.6	11	0.6	0.9	0.50
S.C. SEX	0.2	2	0.2	0.2	0.80
S.C. AGE	2.5	6	0.4	0.6	0.70
SEX AGE	3.6	3	1.2	1.9	0.10
3 WAY INTERACTIONS	3.9	6	0.6	1.0	0.40
S.C. SEX AGE	3.9	6	0.6	1.0	0.40
EXPLAINED	79.1	23	3.4	5.4	0.000
RESIDUAL	352.9	557	0.6		
TOTAL	432.0	580	0.7		

TABLE 35.

MEANS ON BEHAVIOURAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 34.

		TOTAL SAMPLE		BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SOCIAL CLASS 1.	1	.32	25	-.02	12	.64	13
	2	.19	22	-.02	15	.64	7
MEAN = .07	3	-.36	22	-.48	12	-.22	10
N = 104	4	.07	35	-.00	21	.20	14
SOCIAL CLASS 2.	1	.46	52	.22	31	.80	21
MEAN = -.03	2	.06	83	-.18	51	.44	32
N = 334	3	-.31	81	-.61	39	-.03	42
	4	-.13	118	-.25	61	-.00	57
SOCIAL CLASS 3.	1	.50	27	.49	16	.51	11
MEAN = .09	2	.16	40	-.19	18	.46	22
N = 143	3	-.23	38	-.79	17	.22	21
	4	.07	38	-.15	18	.27	20

TOTAL N = 581.

****

TABLE 36.

RESULTS OF THE 3 WAY ANOVAR OF SOCIAL SELF BY SOCIAL CLASS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	2.5	6	0.4	0.5	0.80
SOCIAL CLASS (S.C.)	0.3	2	0.1	0.2	0.85
SEX	1.4	1	1.4	1.8	0.20
AGE	0.7	3	0.2	0.3	0.80
2 WAY INTERACTIONS	5.4	11	0.5	0.6	0.80
S.C. SEX	1.5	2	0.8	0.9	0.40
S.C. AGE	3.9	6	0.6	0.8	0.50
SEX AGE	0.1	3	0.1	0.0	0.9
3 WAY INTERACTIONS	4.6	6	0.8	1.0	0.45
S.C. SEX AGE	4.6	6	0.8	1.0	0.45
EXPLAINED	12.5	23	0.5	0.7	0.85
RESIDUAL	438.5	557	0.8		
TOTAL	450.9	580	0.8		

TABLE 37. MEANS ON SOCIAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 36.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SOCIAL CLASS 1. MEAN = .06 N = 104	1	.10	25	.12	12	.08	13
	2	-.11	22	-.06	15	-.20	7
	3	-.09	22	.29	12	-.55	10
	4	.23	35	.35	21	.05	14
SOCIAL CLASS 2 MEAN = .00 N = 334	1	.00	52	-.03	31	.05	21
	2	-.01	83	.03	51	-.06	32
	3	-.03	81	-.01	39	-.05	42
	4	-.03	118	.06	61	-.00	57
SOCIAL CLASS 3. MEAN = .03 N = 143	1	.04	27	.25	16	-.26	11
	2	.21	40	.27	18	.16	22
	3	-.06	38	-.20	17	.05	21
	4	-.09	38	-.00	18	-.16	20

TOTAL N = 581.

****

TABLE 38.

RESULTS OF THE 3 WAY ANOVAR OF GENERAL SCHOOL SELF BY SOCIAL CLASS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	45.9	6	7.6	12.0	0.000
SOCIAL CLASS (S.C.)	3.6	2	1.8	2.9	0.05
SEX	26.2	1	26.2	41.2	0.000
AGE	17.4	3	5.8	9.1	0.000
2 WAY INTERACTIONS	13.6	11	1.2	1.9	0.30
S.C. SEX	2.1	2	1.1	1.7	0.20
S.C. AGE	7.7	6	1.3	2.0	0.06
SEX AGE	3.4	3	1.1	1.7	0.15
3 WAY INTERACTIONS	8.7	6	1.4	2.3	0.04
S.C. SEX AGE	8.7	6	1.4	2.3	0.04
EXPLAINED	68.1	23	2.9	4.7	0.000
RESIDUAL	354.1	557	0.6		
TOTAL	422.2	580	0.7		

TABLE 39. MEANS ON GENERAL SCHOOL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 38.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SOCIAL CLASS 1. MEAN = -.08 N = 104	1	-.01	25	.47	12	-.45	13
	2	.02	22	.08	15	-.12	7
	3	.30	22	.20	12	.40	10
	4	-.42	35	-.32	21	-.56	14
SOCIAL CLASS 2. MEAN = -.01 N = 334	1	-.20	52	.10	31	-.63	21
	2	-.03	83	.11	51	-.25	32
	3	.20	81	.49	39	-.07	42
	4	-.06	118	-.00	61	-.12	57
SOCIAL CLASS 3. MEAN = -.22 N = 143	1	-.56	27	-.52	16	-.64	11
	2	-.36	40	-.01	18	-.65	22
	3	.13	38	.75	17	-.37	21
	4	-.18	38	.13	18	-.47	20

TOTAL N = 581.

TABLE 40.

RESULTS OF THE 3 WAY ANOVAR OF ACADEMIC SELF BY SOCIAL CLASS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	18.5	6	3.1	4.1	0.000
SOCIAL CLASS (S.C.)	2.7	2	1.3	1.8	0.15
SEX	0.0	1	0.0	0.0	0.80
AGE	15.1	3	5.0	6.7	0.000
2 WAY INTERACTIONS	9.3	11	0.8	1.1	0.35
S.C. SEX	0.9	2	0.4	0.6	0.60
S.C. AGE	6.4	6	1.1	1.4	0.20
SEX AGE	2.1	3	0.7	0.9	0.40
3 WAY INTERACTIONS	10.1	6	1.7	2.2	0.04
S.C. SEX AGE	10.1	6	1.7	2.2	0.04
EXPLAINED	37.9	23	1.6	2.2	0.001
RESIDUAL	418.1	557	0.7		
TOTAL	456.0	580	0.8		

TABLE 41. MEANS ON ACADEMIC SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 40.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SOCIAL CLASS 1. MEAN = -.16 N = 104	1	-.26	25	.07	12	-.56	13
	2	-.36	22	-.39	15	-.30	7
	3	.08	22	-.28	12	.50	10
	4	-.12	35	-.15	21	-.09	14
SOCIAL CLASS 2 MEAN = .04 N = 334	1	-.03	52	-.03	31	-.04	21
	2	.02	83	.09	51	-.11	32
	3	.26	81	.34	39	.18	42
	4	-.06	118	-.21	61	.11	57
SOCIAL CLASS 3 MEAN = .01 N = 143	1	-.48	27	-.58	16	-.35	11
	2	-.11	40	-.06	18	-.15	22
	3	.41	38	.66	17	.21	21
	4	.10	38	.23	18	-.02	20

TOTAL N = 581.

TABLE 42.

RESULTS OF THE 3 WAY ANOVAR OF PARENTAL SELF BY SOCIAL CLASS, SEX, AGE.

****

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS.	15.5	6	2.6	4.0	0.001
SOCIAL CLASS (S.C.)	0.3	2	0.2	0.3	0.80
SEX	7.4	1	7.4	11.5	0.001
AGE	8.3	3	2.8	4.3	0.005
2 WAY INTERACTIONS	4.2	11	0.4	0.6	0.80
S.C. SEX	0.4	2	0.2	0.3	0.10
S.C. AGE	3.1	6	0.5	0.8	0.55
SEX AGE	0.7	3	0.2	0.3	0.80
3 WAY INTERACTIONS	3.0	6	0.5	0.8	0.60
S.C. SEX AGE	3.0	6	0.5	0.8	0.60
EXPLAINED	22.7	23	1.0	1.5	0.05
RESIDUAL	359.4	557	0.6		
TOTAL	382.1	580	0.6		

TABLE 43. MEANS ON PARENTAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 42.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
SOCIAL CLASS 1.	1	.27	25	.22	12	.31	13
MEAN = .09	2	-.02	22	-.09	15	.11	7
N = 104	3	-.22	22	-.29	12	-.14	10
	4	.24	35	.15	21	.37	14
SOCIAL CLASS 2.	1	.22	52	.06	31	.46	21
MEAN = .02	2	.07	83	-.05	51	.27	32
N = 334	3	-.07	81	-.27	39	.11	42
	4	-.03	118	-.11	61	.01	57
SOCIAL CLASS 3.	1	.27	27	.39	16	.08	11
MEAN = .07	2	.06	40	.02	18	.10	22
N = 143	3	-.14	38	-.33	17	.01	21
	4	.14	38	-.06	18	.33	20

TOTAL N = 581.

****

RESULTS AND DISCUSSION.

It can be seen from the results of the Tables 32 to 43 that social class for this sample of junior school children has no significant effect on their global, behavioural, social, academic or parental self-concepts.

In terms of the global self-concept, the findings of no significant difference between the social classes would appear to be similar to those of Day and Brice (1977) (1). They were investigating self-concept development in classrooms of varying degrees of "openness" and found no significant difference for self-concept development by socio-economic status. Coopersmith (1967) (2) also found no significant relationship between self-esteem and social class. In contrast, however, Trowbridge (1972) (3) found that children of low socio-economic status, who were often called culturally disadvantaged, consistently held a higher self-concept than children of middle socio-economic status.

A F ratio of 2.9 with $p < .05$ in Table 38 indicates that social class does have a significant effect on general school self-concept. In this study, the children in the lowest social class group had the lowest general school self-concept score. It is reasonable to assume that parents from the lower social classes would have different values and beliefs concerning the worth of schools. Many, no doubt, would be considered the failures of such systems. The above result could be explained by assuming that the children from the lowest social class in this sample are reflecting the opinions of their parents towards school.

(1). Day, B. and Brice, R. (1977) "Academic achievement, self concept development, and behavior patterns of six year old children in open classrooms." Elementary School Journal. 78, 132-139.
(2). Coopersmith, S. (1967) The Antecedents of Self Esteem. W.H. Freeman Co; San Francisco.
(3). Trowbridge, N. (1972) "Socio economic status and self concept of children" J. of Teacher Education.

It is interesting to note that social class does not have a significant effect on the children's academic self-concept, as can be seen from Tables 40 and 41. Although there is a difference in the mean scores i.e. the children from the highest social class have the lowest academic self-concepts, it is not statistically significant. These findings are in contrast to those of Brookover etal (1967) (4) who found in their study of seventh graders that the family socio-economic status was positively related to the childrens' self-concept of ability. Wylie (1963) (5), in studying children's estimates of their school work ability, reported that children from lower socio-economic levels made more modest estimates of their ability than did children from higher socio-economic levels.

SUMMARY OF TABLES 32 TO 43.

1. The only significant finding for the effect of social class was for general school self-concept. The children in the lowest social class group had the lowest general school self-concepts.
2. Social class for this sample of children has no significant effect on their global, behavioural, social, academic or parental self-concept scores.

EFFECT OF PEER STATUS ON SELF-CONCEPT.

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A sample of 684 children were used in this analysis to form the three peer status groups as explained in Chapter 14, page 178. The three way analysis of variance results for age, sex and peer status with global self-concept and the five factor scores are shown in the Tables 44 to 55.

(4). Brookover, W.B., Erickson, E.L. and Joiner, L.M. (1967) "Self concept of ability and school achievement: relationship of self-concept to achievement in high school" Co-operative Research Project No.2831, East Lansing, Michigan State University.
(5). Wylie, R.C. (1963) "Children's estimates of their school work ability, as a function of sex, race and socio-economic level." J. of Personality. 31, 203-224.

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TABLE 44.

RESULTS OF THE 3 WAY ANOVAR OF GLOBAL SELF CONCEPT BY PEER STATUS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	18,354	6	3059	10.5	0.000
PEER STATUS	1,599	2	799	2.7	0.06
SEX	7,921	1	7921	27.2	0.000
AGE	8,946	3	2982	10.3	0.000
2 WAY INTERACTIONS	2,145	11	195	0.7	0.80
PEER STATUS, SEX	395	2	197	0.7	0.50
PEER STATUS, AGE	282	6	47	0.2	0.99
SEX AGE	1,360	3	453	1.6	0.20
3 WAY INTERACTIONS	2,592	6	432	1.5	0.18
PEER SEX AGE	2,592	6	432	1.5	0.18
EXPLAINED	23,091	23	1004	3.4	0.000
RESIDUAL	191,891	660	291		
TOTAL	214,982	683	314		

TABLE 45. MEANS ON GLOBAL SELF CONCEPT FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 44.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
PEER STATUS 1. MEAN = 110.5 N = 234	1	116.8	49	110.0	21	121.9	28
	2	110.5	69	107.4	35	113.7	34
	3	103.2	49	93.2	24	112.8	25
	4	111.2	67	111.4	35	110.9	32
PEER STATUS 2. MEAN = 107.1 N = 242	1	110.7	57	108.2	37	115.5	20
	2	105.6	56	101.6	36	112.8	20
	3	103.4	55	101.4	23	104.8	32
	4	108.2	74	104.6	38	112.0	36
PEER STATUS 3. MEAN = 106.5 N = 208	1	112.6	41	108.5	22	117.3	19
	2	104.6	62	103.0	42	108.0	20
	3	101.5	38	98.9	20	104.4	18
	4	107.4	67	107.3	37	107.6	30

TOTAL N = 684.

TABLE 46.

****

RESULTS OF THE 3 WAY ANOVAR OF BEHAVIOURAL SELF BY PEER STATUS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	71.8	6	11.9	19.1	0.000
PEER STATUS (P.S.)	0.1	2	0.0	0.1	0.90
SEX	41.9	1	41.9	66.9	0.000
AGE	33.4	3	11.1	17.8	0.000
2 WAY INTERACTIONS	9.4	11	0.8	1.4	0.20
P.S. SEX	2.6	2	1.3	2.1	0.10
P.S. AGE	1.2	6	0.2	0.3	0.90
SEX AGE	4.9	3	1.6	2.6	0.05
3 WAY INTERACTIONS	4.9	6	0.8	1.3	0.25
P.S. SEX AGE	4.9	6	0.8	1.3	0.25
EXPLAINED	86.2	23	3.7	6.0	0.000
RESIDUAL	412.7	660	0.6		
TOTAL	498.8	683	0.7		

TABLE 47. MEANS ON BEHAVIOURAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 46.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
PEER STATUS 1. MEAN = .03 N = 234	1	.52	49	.06	21	.86	28
	2	.05	69	-.28	35	.39	34
	3	-.36	49	-.95	24	.20	25
	4	-.07	67	-.17	35	.05	32
PEER STATUS 2. MEAN = -.01 N = 242	1	.21	57	.03	37	.56	20
	2	-.01	56	-.18	36	.31	20
	3	-.22	55	-.47	23	-.04	32
	4	-.04	74	-.20	38	.12	36
PEER STATUS 3. MEAN = .01 N = 208.	1	.31	41	.14	22	.51	19
	2	.02	62	-.21	42	.52	20
	3	-.29	38	-.37	20	-.20	18
	4	-.03	67	-.10	37	.05	30

TOTAL N = 684.

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TABLE 48.

RESULTS OF THE 3 WAY ANOVAR OF SOCIAL SELF BY PEER STATUS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	26.4	6	4.4	6.0	0.000
PEER STATUS (P.S.)	23.0	2	11.5	15.7	0.000
SEX	2.7	1	2.7	3.6	0.05
AGE	1.6	3	0.5	0.7	0.50
2 WAY INTERACTIONS	3.6	11	0.3	0.4	0.90
P.S. SEX	0.7	2	0.3	0.5	0.60
P.S. AGE	3.0	6	0.5	0.7	0.65
SEX AGE	0.0	3	0.0	0.0	0.99
3 WAY INTERACTIONS	2.6	6	0.4	0.6	0.70
P.S. SEX AGE	2.6	6	0.4	0.6	0.70
EXPLAINED	32.6	23	1.4	1.9	0.01
RESIDUAL	483.3	660	0.7		
TOTAL	515.8	683	0.7		

TABLE 49. MEANS ON SOCIAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 48.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
PEER STATUS 1. MEAN = .20 N = 234	1	.16	49	.10	21	.20	28
	2	.23	69	.28	35	.18	34
	3	.20	49	.25	24	.15	25
	4	.21	67	.31	35	.11	32
PEER STATUS 2. MEAN = -.00 N = 242	1	.06	57	.11	37	-.02	20
	2	.12	56	.16	36	.05	20
	3	-.12	55	-.00	23	-.21	32
	4	-.05	74	-.09	38	-.00	36
PEER STATUS 3. MEAN = -.24 N = 208.	1	-.14	41	.05	22	-.36	19
	2	-.29	62	-.23	42	-.40	20
	3	-.44	38	-.46	20	-.42	18
	4	-.12	67	-.00	37	-.31	30

TOTAL N = 684.

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TABLE 50.

RESULTS OF THE 3 WAY ANOVAR OF GENERAL SCHOOL SELF BY PEER STATUS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	49.9	6	8.3	11.6	0.000
PEER STATUS (P.S.)	1.6	2	0.8	1.1	0.30
SEX	32.6	1	32.6	45.4	0.000
AGE	15.2	3	5.1	7.1	0.000
2 WAY INTERACTIONS	6.8	11	0.6	0.9	0.55
P.S. SEX	1.1	2	0.6	0.8	0.45
P.S. AGE	1.5	6	0.2	0.4	0.90
SEX AGE	3.8	3	1.3	1.8	0.15
3 WAY INTERACTIONS	6.9	6	1.1	1.6	0.15
P.S. SEX AGE	6.9	6	1.1	1.6	0.15
EXPLAINED	63.6	23	2.8	3.8	0.000
RESIDUAL	473.7	660	0.7		
TOTAL	537.3	683	0.8		

TABLE 51. MEANS ON GENERAL SCHOOL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 50.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
PEER STATUS 1.	1	-.33	49	-.07	21	-.52	28
MEAN = -.07	2	.09	69	.22	35	-.05	34
N = 234	3	.21	49	.62	24	-.20	25
	4	-.24	67	-.13	35	-.36	32
PEER STATUS 2.	1	-.05	57	.17	37	-.47	20
MEAN = .04	2	.24	56	.56	36	-.32	20
N = 242	3	.13	55	.32	23	-.01	32
	4	-.10	74	.10	38	-.32	36
PEER STATUS 3.	1	-.22	41	.23	22	-.73	19
MEAN = -.05	2	.08	62	.14	42	-.04	20
N = 208	3	.02	38	.20	20	-.17	18
	4	-.12	67	-.08	37	-.16	30

TOTAL N = 684.

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TABLE 52.

RESULTS OF THE 3 WAY ANOVAR OF ACADEMIC SELF BY PEER STATUS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	17.6	6	2.9	3.9	0.001
PEER STATUS (P.S.)	4.9	2	2.5	3.3	0.04
SEX	0.8	1	0.8	1.1	0.30
AGE	11.7	3	4.0	5.2	0.001
2 WAY INTERACTIONS	4.9	11	0.4	0.6	0.80
P.S. SEX	0.2	2	0.1	0.1	0.90
P.S. AGE	3.0	6	0.5	0.7	0.70
SEX AGE	1.4	3	0.5	0.6	0.60
3 WAY INTERACTIONS	4.1	6	0.7	0.9	0.50
P.S. SEX AGE	4.1	6	0.7	0.9	0.50
EXPLAINED	26.6	23	1.1	1.5	0.05
RESIDUAL	494.3	660	0.7		
TOTAL	520.9	683	0.8		

TABLE 53. MEANS ON ACADEMIC SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 52.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
PEER STATUS 1. MEAN = -.12 N = 234	1	-.26	49	-.27	21	-.25	28
	2	-.21	69	-.26	35	-.16	34
	3	.18	49	.34	24	.03	25
	4	-.15	67	-.40	35	.13	32
PEER STATUS 2. MEAN = .04 N = 242	1	-.00	57	-.02	37	.02	20
	2	-.08	56	-.09	36	-.07	20
	3	.18	55	.06	23	.27	32
	4	.06	74	.05	38	.07	36
PEER STATUS 3. MEAN = .07 N = 208.	1	-.23	41	-.25	22	-.20	19
	2	.08	62	.08	42	.09	20
	3	.37	38	.38	20	.36	18
	4	.06	67	.01	37	.12	30

TOTAL N = 684.

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TABLE 54.

RESULTS OF THE 3 WAY ANOVAR OF PARENTAL SELF BY PEER STATUS, SEX, AGE.

SOURCE OF VARIATION.	SUM OF SQUARES	D.F.	MEAN SQUARE	F.	SIGN. OF F
MAIN EFFECTS	17.6	6	2.9	4.3	0.000
PEER STATUS	0.7	2	0.3	0.5	0.60
SEX	8.9	1	8.9	13.1	0.00
AGE	7.8	3	2.6	3.8	0.01
2 WAY INTERACTIONS	5.9	11	0.5	0.8	0.65
P.S. SEX	1.2	2	0.6	0.9	0.40
P.S. AGE	4.1	6	0.7	1.0	0.40
SEX AGE	0.6	3	0.2	0.3	0.80
3 WAY INTERACTIONS	5.8	6	0.9	1.4	0.20
P.S. SEX AGE	5.8	6	0.9	1.4	0.20
EXPLAINED	29.3	23	1.2	1.9	0.01
RESIDUAL	448.8	660	0.7		
TOTAL	478.1	683	0.7		

TABLE 55. MEANS ON PARENTAL SELF FOR THE GROUPS SHOWN IN THE 3 WAY ANOVAR IN TABLE 54.

	TOTAL SAMPLE			BOYS		GIRLS	
	AGE	MEAN	N	MEAN	N	MEAN	N
PEER STATUS 1. MEAN = .06 N = 234	1	.24	49	.02	21	.41	28
	2	.12	69	.05	35	.18	34
	3	-.15	49	-.58	24	.26	25
	4	.04	67	-.01	35	.11	32
PEER STATUS 2. MEAN = .00 N = 242	1	.21	57	.17	37	.28	20
	2	-.24	56	-.39	36	.02	20
	3	-.09	55	-.13	23	-.06	32
	4	.10	74	-.04	38	.25	36
PEER STATUS 3. MEAN = -.03 N = 208	1	.07	41	-.07	22	.24	19
	2	-.10	62	-.09	42	-.13	20
	3	-.07	38	-.08	20	-.05	18
	4	-.01	67	-.08	37	.07	30

TOTAL N = 684.

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RESULTS AND DISCUSSION.

Results shown in Tables 44 to 55 indicate that peer status, as measured by a three choice sociometric technique with the criterion of "Who are your best friends in class?" has no significant effect on behavioural self, general school self, and parental self scores of the children in the sample, but does for social and academic self scores.

The analysis of variance, as summarised in Tables 44 and 45, shows that there are global self-concept differences in terms of the peer status group i.e. $F = 2.7$. However, these differences were just short of attaining statistical significance since $p = .06$. These non significant differences suggested that children who were in the highest peer status group tended to have the highest global self-concept scores.

This proposed relationship between self-concept and sociometric choice status is one that has produced many inconsistent findings in the literature. Coopersmith (1959) (6) found a significant correlation of $r = .37$ with $p < .01$ between sociometric choice status and self-concept. Using a rating scale Reese (1961) (7) reported a curvilinear relationship between the peer status and self-concept. The children with the highest sociometric status occurred in the group with moderate self-concept scores.

In a study with fourth, fifth and six graders Horowitz (1962) (8) found a significant correlation between self-concept and sociometric status for the children in the fourth grade, but not for the other two grades. A significant linear relationship was found though by Guardo (1969) (9) in her study of 114 sixth graders.

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(6). Coopersmith, S.A. (1959) "A method of determining types of self-esteem." J. Abnormal and Soc. Psychol. 59, 87-94.
(7). Reese, H.W. (1961) "Relationship between self acceptance and sociometric choices" J. Abnormal and Social Psychol. 62, 472-474.
(8). Horowitz, F.D. (1962) "The relationship of anxiety, self concept, and sociometric status among fourth, fifth and sixth grade children." J. Abnormal and Social Psychol. 65, 212-214.
(9). Guardo, C.J. (1969) "Sociometric status and self-concept in sixth graders" J. Educational Research 62, 320-322.

Bradley and Newhouse (1975) (10) using also a sample of 158 sixth graders concluded that the concept of self is a factor highly related to how elementary school children are perceived by their peers. Chambliss (1978) (11) using older children in the seventh, eighth and ninth grades found only a moderate relationship, r = .29, between self-concept and popularity. Rudner etal (1976) (12) with children from a rural and an urban school found that children who were isolated or rejected by their classmates did not possess lower self-concepts than non-rejected children.

The studies reviewed above are indicative of the inconsistent findings concerning self-concept and sociometric choice. The self-concept measures used in these studies tended to be global in nature. The findings of the present study regarding global self-concept and peer status are not statistically significant. However, significant findings were obtained when the effect of peer status was considered on two of the specific self sub scales. These scales were social self and academic self-concept.

A F ratio of 15.7 with $p < .001$ indicates a highly significant effect of peer status on social self-concept as shown in Tables 48 and 49. The children in the highest peer status group also had very high social self-concepts. The strength of this relationship declines as peer status declines. The lowest peer status group in the sample have very low and negative social self-concept scores.

These findings strongly suggest that for this particular measure the children in the sample have true and realistic perceptions of their social standing among their peers. Furthermore, they also highlight the advantage of using a factor specific model as the self-concept measure in contrast to a global self measure.

Consideration of Tables 52 and 53 show that peer status is significantly related to academic self-concept. A F ratio of 3.3

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(10). Bradley, F.O. and Newhouse, R.C. (1975) "Sociometric choice and self perceptions of upper elementary school children" Psychology in the Schools 12, 219-222.

(11). Chambliss, J., Muller, D., Hulnick, R. and Wood, M. (1978) "Relationships between self-concept, self-esteem, popularity, and social judgements of junior high school students" The Journal of Psychol. 98, 91-98.

(12). Rudner, H.L., Markoff, M. and Westwood, M. (1976) "The relationship between isolation and self concept in the elementary school classroom: an exploratory study" Canadian Counsellor. 10, 110-115.

CHAPTER SEVENTEEN. SUMMARY, APPRAISALS AND RECOMMENDATIONS.

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RESUME. After a succession of factor analyses of the responses ********* of different samples of children a self-concept scale was formulated that assessed five areas of the self-concept. The final scale contained 21 items and gave a measure of the behavioural self, social self, general school self, academic self and parental self-concept of the respondents. A global self-concept score was achieved by totaling the scores for the five subscales.

A sample of 742 children, aged seven to eleven years old, completed the self-concept scale and the following data was collected for each child.

1. English Picture Vocabulary Test Score
2. Self-concept scale scores
3. Sociometric score
4. Number of siblings in family
5. Position of birth in family
6. Parental occupation

The data collected was coded and analysed using two main procedures. The first was a two way analysis of variance of the self-concept scores of the 742 children with respect to age and sex. Secondly, a series of three way analyses of variance of the self-concept scores were performed with respect to age, sex and the following selected variables

1. Social Class
2. Peer Status
3. Ability Group
4. Relative Ability Group
5. Number of Siblings in Family
6. Family Position

SUMMARY OF MAIN FINDINGS.

****

The results of the present study are summarised in the following pages. For ease of reporting, the results of the two main analytical procedures as detailed in Chapters 15 and 16 have been amalgamated. The comparison of the results of this study with those of previous research have already been discussed in these two chapters.

GLOBAL SELF-CONCEPT.

1. Significant sex differences were found in favour of the girls; $F = 35.6$, $p < .001$.

2. Significant age differences were observed; $F = 10.3$, $p < .001$. The first year children possessed the highest mean score and the third year children had the lowest mean score.

3. No significant differences were found with respect to

    a. social class
    b. peer status
    c. ability group
    d. siblings
    e. family position.

4. A significant difference was observed with respect to relative ability; $F = 5.6$, $p < .001$.
   The highest relative ability group had the highest mean global self-concept score, and the children in the lowest relative ability group had the lowest mean global self-concept score.

BEHAVIOURAL SELF-CONCEPT.

1. Sex differences in favour of the girls were significant. $F = 74.8$, $p < .001$.

2. Age differences were found that were significant;
   $F = 18.2$, $p < .001$.
   The first year children had the highest mean score and the third year children had the lowest mean score.

3. No significant differences were observed with respect to

   a. social class
   b. peer status
   c. ability group
   d. relative ability group
   e. siblings
   f. family position.

SOCIAL SELF-CONCEPT.

1. No significant age or sex differences were found.

2. No significant differences were observed with respect to

   a. social class
   b. siblings
   c. family position

3. A significant difference was found with respect to peer status;
   $F = 15.7$, $p < .001$.
   The children in the highest peer status group possessed the highest mean social self score, and the children in the lowest peer status group had the lowest mean social self score.

4. A differing sex result was obtained to that of the two way analysis of variance. A significant sex difference in favour of the boys was apparent; $F = 3.6$, $p < .05$.

5. A significant difference was observed with respect to ability grouping; $F = 4.0$, $p < .05$.
   The children in the highest ability group had the highest mean social self-concept score, and the children in the lowest ability group had the lowest mean social self-concept score.

6. Significant differences for relative ability groups were found; $F = 5.6$; $p < .005$.
The highest relative ability group had the highest mean social self score, and the lowest relative ability had the lowest mean social self score.

GENERAL SCHOOL SELF-CONCEPT.

1. A significant sex difference was found in favour of the boys; $F = 59.0$, $p < .001$.

2. Significant age differences, $F = 6.6$ and $p < .001$, were found with the first year and fourth year children having the lowest mean general school self score, while the third year children had the highest mean scores.

3. No significant differences were observed with respect to

   a. peer status
   b. ability group
   c. relative ability group
   d. siblings
   e. family position

4. A significant difference for the effect of social class was found; $F = 2.9$, $p < .05$.
The children in the lowest social class had the lowest general school self-concepts.

ACADEMIC SELF-CONCEPT.

1. No significant sex difference was observed.

2. Significant age differences were apparent, $F = 6.6$ and $p < .001$, with the first year children having the lowest mean academic self scores and the third year children having the highest academic self score.

3. No significant differences were found with respect to

   a. social class
   b. siblings
   c. family position

4. A significant difference was observed with regard to peer status; $F = 3.3$ and $p < .05$.
   The children in the highest peer status group had the lowest academic self scores. The children in the other two peer status groups had similar mean academic self scores.

5. A significant difference was found with respect to ability grouping; $F = 10.5$ and $p < .001$.
   The children in the highest ability group had the lowest mean academic self scores, and the children in the lowest ability groups had the highest mean academic self scores.

6. Significant differences for the relative ability groups were found to exist; $F = 15.1$ and $p < .001$.
   The children in the highest relative ability group had the lowest academic self scores and the children in the lowest relative ability group had the highest academic self scores.

PARENTAL SELF-CONCEPT.

1. Significant sex differences were apparent in favour of the girls; $F = 15.5$ and $p < .001$.
2. Significant age differences were found; $F = 2.7$ and $p < .05$.
   The children in the first year had the highest mean parental self score and the children in the third year had the lowest mean parental self score.

3. No significant differences were observed with respect to

   a. social class
   b. peer status

c. ability group
d. relative ability group
e. siblings
f. family position.

GENERAL FINDINGS.

The use of specific self-concept scales were found to be more valuable than the global self-concept scale when assessing the relationship of selected variables with self-concepts. Consideration of the global self-concept often obscured the presence of significant relationships that existed with specific self-concept scales. For instance, the girls were found to have significantly higher global self-concept scores than boys. However, consideration of the five subscales further indicated that the girls had significantly higher scores than boys on the behavioural and parental self scales, but significantly lower scores on the general school self scale. No sex differences were observed for the social or academic self scores. This information is much more detailed and worthwhile than merely measuring global self-concepts.

The value in examining specific aspects of the self-concept was also illustrated when the variables of age, social class, peer status, ability and relative ability were considered. Once again relationships were found with the specific self scales and these variables that were not apparent with the global self-concept scale. These differences have already been summarised in the last section. It is sufficient to say that this study has clearly illustrated the value of specific self-concepts.

Difficulty frequently arises in the literature on the self when academic ability is related to self-concept. Many measures that have been used to assess ability are not equivalent. Furthermore, comparison of studies that have used existing ability groups with studies that have formed ability groups for statistical analysis are of limited value. This study advocated the use of "relative"

ability groups. These groups give due regard to the spread of ability with the child's class. In general, the results obtained using "relative" ability were more valuable than those attained with the more usual ability groupings.

One indirect finding, or confirmation, resulting from this study is the necessity of factor analysing any proposed self-concept scale. This technique cast serious doubts on one proposed self-concept scale in this study. This scale was devised from a pool of items which were very similar to those contained in many other scales, both published and unpublished. It thus suggests that any self-concept scale that has not been factor analysed is highly questionable.

SOME CRITICISMS OF THIS STUDY.

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The methodological limitations of the present study need to be examined so that a realistic perspective is afforded to the results. Although careful attention was given to devising the self-concept scale and to the design of the research many facets of the study require refinement.

The construct validity of the self-concept scale would have been enhanced if its results had been correlated with another proven self-concept scale. The difficulty here, of course, is finding an acceptable scale. Nevertheless, the comparison would have been worthwhile and would have been a further stage in the validation of the present instrument.

The reliability of the self-concept scale was tested using a test-retest reliability coefficient. However, the sample was drawn from only one school and the children in the sample were academically the poorest of the four schools in the main sample. This could introduce bias into the results. It would have been preferable to use a sample representative of the main population that were tested. Lack of time and opportunity prevented me from using such

a sample.

The general problems relating to self report scales as discussed in Chapters 7 and 8 were considered in the preparation and administration of the present scales. The problems of social desirability and response set are always present in the type of instrument used in this study. Although attempts were made to minimise their effects, it is impossible to state that they were overcome. Furthermore, the seven categories used along a continuum that separates a pair of bi-polar statements may have asked the children to make finer distinctions about themselves than they were capable of achieving. However, this point could provide a recommendation for future research and will be dealt with again in the next section.

The original aim of the study to devise five subscales that assessed academic, parental, emotional, social and physical selves required major modification. In particular, the attempt to measure physical and emotional selves was abandoned. My initial estimates as to the areas relevant to a child's self-concept were not confirmed by the subsequent factor analyses.

The main collection of a pool of items to be used in the self-concept scale could have been improved. The sample of 49 children was too small and they were all taken from the same year group. A larger sample taken from the four year groups may have provided a more relevant pool of items.

The construction of the self-concept scale was a lengthy process. The use of a sample of only 59 children with a scale containing 56 variables, as described in Chapter 10, was questionable. It was a sample of convenience, but a much larger sample may have produced more reliable factor analysis results. The final scale of 21 items used with the main sample had only approximately 4 items per subscale, and some of these could be regarded as similar. The intention was to produce specific subscales but not ones that could be considered restrictive.

The measurement of social class as reported in Chapter 14 was somewhat suspect. Bias in the results could have been introduced

at this stage because of the difficulty in assessing parental occupations of the younger children. The children in the first and second year were unable to give accurate information and many were omitted from the social class analyses.

In contrast to the above, the coding of the peer status groups resulted in too many children being used. Some 92% of the total sample of 742 children were assigned to one of the three peer status groups. Significant differences in self-concept scores were attained with these large groups. However, if the criterion for inclusion in a particular group had been stricter, perhaps more significant results may have been attained.

The use of the family variables of birth order and number of siblings in assessing self-concept differences was too simplistic. Other factors, as discussed in the next section, would offer more information concerning the effect of the family. In addition, many of the analyses were of doubtful value because of the low numbers of children in some of the groups.

In conclusion to this section it should be stated that the use of a self report, administered to a group of children, does have its limitations. However, it does provide a quick measurement of group differences and it is useful to identify those children within the group who have unusually high or low self-concepts. The group measure could then lead to individual assessments.

RECOMMENDATIONS FOR FUTURE RESEARCH.

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It has been a central part of this study that specific self-concepts are more meaningful than global self-concepts. This has been illustrated by the results reported in this study. However, difficulty was frequently encountered in obtaining studies which purported to measure some of the specific self-concepts established in this study. The use of clearly defined specific self-concept scales should be encouraged in future research.

The relationship of a academic ability and self-concept has received great attention over the years. However, two areas need to be examined in greater detail. Firstly, the use of relative ability groups has produced some success in this study, but further

work is necessary to establish its usefulness. Secondly, the effects of over and under-achievers at all levels of ability requires examination.

Greater attention should be given to certain family variables when examining self-concepts. One area for future research is the effect of perceived sibling affection. Studies have assessed the effect of sibling distribution, spacing and sex but none to my knowledge have attempted to measure how the child perceives the warmth and affection of his siblings.

Another area for further consideration within the family is the parental self scale. In this study it reflects the child's perception of his parents as authoritarian figures. It would be very interesting to compare the sex and age differences found for the present sample of young children with the findings obtained using a sample comprising adolescents. In particular, would adolescent girls view their relationship with their parents in a significantly more positive way than adolescent boys? Furthermore, would feelings towards parents become even more negative during adolescence?

The scale in this study utilised bi-polar statements separated by seven crosses. It would be pertinent to self-concept measurement if the pattern of response in this type of scale was evaluated with regard to age and ability. Although the children found little difficulty in completing the scales, on scoring their responses I felt that further research into their distribution, with particular regard to age and ability, would be profitable.

B I B L I O G R A P H Y .

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LIST OF APPENDICES.

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APPENDIX 1.

****

List of traits, arranged in order of their frequency of mention, obtained from the sample of 49 children during the item collection stage of the five proposed self concept scales.

****

ACADEMIC SELF ITEMS.

****

Constructs applied to children who do well at school.		Constructs applied to children who do not do well at school.	
Clever	20.	Does not pay attention	22.
Pays attention	18.	Lazy	12.
Hardworker; tries their best	12.	No good at school work	10.
Neat worker	6.	Not clever	6.
Good at school work	6.	Badly behaved	10.
Enjoys school work	5.	Not neat	8.
Likes school	5.	Dislikes school work	2.
Fast worker	2.	Gets low marks	2.
		Slow worker	2.
		Friends interrupt them	2.

****

SOCIAL SELF ITEMS.

****

Constructs applied to children who get on well with others.		Constructs applied to children who do not get on well with others.	
Plays with me	18.	Bully	10.
Generous	7.	Always in trouble (fighting)	9.
Never falls out of friends	6.	Refuses to play	7.
Kind	6.	Falls out of friends	6.
"Get on" with them	4.	Bossy	3.
Doesn't fight	4.	Stay by themselves	2.
Calls for me	3.	Unkind	2.
Friendly	3.	Big head	2.
Nice	3.	Don't like them	2.
Helpful	2.		
Talks to me	2.		
Keeps out of trouble	2.		

FAMILY SELF ITEMS.
****

Constructs applied to families that children liked or respected.		Constructs applied to families that children disliked.	
Friendly with others	14.	Don't get on with each other	12.
Kind	13.	Tell other children off	5.
Nice	11.	Scruffy	5.
Generous	10.	Don't share	4.
Get on well with each other	8.	Trouble makers	4.
Clean	4.	Noisy	4.
Good behaviour	4.	Not friendly with others	3.
Well dressed	3.	Bad mannered	3.
Happy	4.	Unkind	3.
Don't fight	2.	Poor	2.
Well mannered	2.	Sad	2.
Helpful	2.	Not nice	2.

****

EMOTIONAL SELF ITEMS.
****

Constructs applied to children with admirable qualities.		Constructs applied to children with undesirable qualities.	
Truthful	10.	Cheats	18.
Friendly	10.	Liar	12.
Doesn't cheat	9.	Steals	8.
Clever	5.	Fights	3.
Kind	4.	Not friendly	2.
Good worker	2.	Bully	2.
Trustworthy	2.		

PHYSICAL SELF ITEMS.

Constructs applied to children considered physically superior.		Constructs applied to children considered physically inferior.	
Well dressed	26.	Untidy clothes	22.
Good at games	26.	Slow	18.
Fast runner	20.	No good at games	17.
Nice face	15.	Dirty	14.
Clean	14.	Untidy hair	9.
Good looking	9.	Not good looking	8.
Nice hair	8.	Doesn't try at sport	5.
Nice eyes	6.	Mis-shaped nose	3.
Tries best at sport	3.	Smells	2.
Energetic	2.	Not fit	2.
Tidy	2.		

APPENDIX 2.

****

A brief cross section of the items used in previous research, published and unpublished, that relate to the proposed scales of academic, social, family, emotional and physical selves.

****

SCHOOL; ACADEMIC SELF ITEMS.
****

Happy at school.
Top of class.
Lessons are important.
I have good ideas.
Like school.
Like school work.
Lessons are easy.
Clever.
Never copy.
Listen to teacher.

Work hard.
Like hard work.
Good at school work.
Get good reports.
Want to do well.
School upsets me.
Tests worry me.
I give up easily.
Not a trouble causer.

I am good at; or enjoy; or am better than most other children at

a) drawing, painting
b) sums, tables
c) maths
d) reading
e) english
f) writing
g) games

Teachers a) are kind
b) are helpful
c) make me feel inferior
d) like me
e) annoy me
f) make me nervous
g) are nice

SOCIAL SELF ITEMS.
****

Children want to play with me.
Don't get into trouble.
Argue with other children.
Shy.
Have lots of friends.
Children like me.
Never fight.
Get on well with everyone.
I'm friendly.
Popular.
Don't annoy children.
Rather be by myself.
I'm leader.
Never sorry for others.
Sometimes lonely.
Good mixer.

FAMILY SELF ITEMS.
****

My mum; dad; sister; or brother makes me happy.
Get on well with my family.
My family are nice.
Like; dislike my parents; home; family.
I'm co-operative at home.
I have a brother; sister that I don't like.
My parents let me decide for myself.
My parents expect too much of me.
I'm easy to live with.
My parents; brothers; sisters are lots of fun.
My parents understand me.
I get upset easily at home.
No one pays attention to me.
I'd like to leave home.
My parents think I'm alright.
My parents are as nice as any others.
I'm a big help at home.
I behave badly at home.

EMOTIONAL SELF ITEMS.
****

I am:	generous	I am:	shy
	honest		patient
	sympathetic		sensible
	special		a happy person
	jealous		polite
	trustworthy		brave
	good tempered		lazy
	a liar		thoughtful
	helpful		mean
	a show off		useful
	nervous		faithful
	obedient		a daydreamer
	kind		bossy
			cheerful

I do what is right.
I feel sorry when others are in trouble.
I cry easily.
I forgive easily.
I'm a worthwhile person.
People find me interesting.
I'm proud of myself.
I wish I were someone else.
I never worry.
I always get my own way.
Often my feelings are hurt.
I'm afraid people will laugh at me.
I do many bad things.

PHYSICAL SELF ITEMS.
****

I am:	nice looking	I am:	beautiful
	neat		strong
	clean		fast
	fat		sporty
	tall		active

I'm the best at sport; games; running; P.E.
I like my face.
Have a good complexion.
Better at sport than school work.
I like games; sport; P.E.
I'm in good health.
I get tired quickly.
I dress well.
I am a good runner.
Always sick.
Like the way I look.
My looks upset me.
I have nice hair.

****

APPENDIX 3.

****

The initial form of the self concept scales containing 56 items.

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****

Boy/Girl..... Date of Birth..... Age.....years

1. I am strong for my age	X X X X X X X	I am not strong for my age
2. I often do what I know to be wrong.	X X X X X X X	I always try to do what is right.
3. I like school work	X X X X X X X	I hate school work.
4. I am not easy to live with.	X X X X X X X	I am easy to live with.
5. I am a big help at home	X X X X X X X	I never help at home.
6. My hair is always tidy.	X X X X X X X	My hair is never tidy
7. I always listen to the teacher in class	X X X X X X X	I never listen to the teacher in class
8. I never lose my temper	X X X X X X X	I often lose my temper
9. I never worry about anything	X X X X X X X	I always seem to worry.
10. I always cheat	X X X X X X X	I never cheat
11. I like to share everything with my family	X X X X X X X	I never share things with my family
12. My school is nice	X X X X X X X	I hate my school
13. My family makes me happy	X X X X X X X	My family makes me sad
14. I never have any energy	X X X X X X X	I always have plenty of energy
15. My school work is always neat	X X X X X X X	My school work is always untidy
16. I have plenty of children to play with	X X X X X X X	Often no one will play with me.
17. I don't care if I look dirty.	X X X X X X X	I always like to be clean.
18. I am a happy person	X X X X X X X	I am often unhappy.
19. Children often talk to me in the playground	X X X X X X X	No one talks to me in the playground.

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20. I am helpful to others	X X X X X X X	I rarely bother to help anyone.
21. I can never be trusted	X X X X X X X	I can always be trusted.
22. I am not nice looking	X X X X X X X	I am nice looking.
23. I always seem to be ill	X X X X X X X	I am never ill.
24. I am no good at school work	X X X X X X X	I am very good at school work.
25. I always finish my school work quickly	X X X X X X X	I am slow in my school work
26. My parents tell other children off	X X X X X X X	My parents never tell other children off.
27. I am a shy child	X X X X X X X	I am never shy
28. I am never well dressed	X X X X X X X	I am always well dressed.
29. I always tell the truth	X X X X X X X	I never tell the truth
30. I am a very good runner	X X X X X X X	I can't run well at all
31. There is no one I get on well with	X X X X X X X	I get on well with lots of children.
32. My parents dislike my friends	X X X X X X X	My parents like my friends
33. At home we are always kind to one another	X X X X X X X	At home we are often unkind to one another.
34. I am never bossy with other children	X X X X X X X	I am always bossy.
35. I annoy other children	X X X X X X X	I never annoy other children
36. I think I am clever	X X X X X X X	I am not clever at all.
37. I often bring my friends into our house	X X X X X X X	I can't bring my friends into our house.
38. I don't like my face	X X X X X X X	I like my face.
39. I often bully other children	X X X X X X X	I never bully children.
40. I'm no good at P.E. and games.	X X X X X X X	I am very good at P.E. and games.
41. My home is cleaner than most.	X X X X X X X	My home is never clean.

42. In class I am not well behaved.	X X X X X X X	In class I am always well behaved.
43. I am not kind to others	X X X X X X X	I am always kind to others.
44. I try to be friendly to everyone in class	X X X X X X X	I am not friendly at all to anyone.
45. I am always fighting.	X X X X X X X	I never fight with other children.
46. At home we are always the best of friends.	X X X X X X X	We are always falling out with one another at home.
47. I always try to do what I am told.	X X X X X X X	I never do as I am told.
48. No one pays attention to what I say at home.	X X X X X X X	Everyone pays attention to me at home.
49. I never fall out of friends with other children.	X X X X X X X	I am always falling out of friends.
50. I often wish I were someone else.	X X X X X X X	I never wish to be someone else.
51. I am never well behaved at home.	X X X X X X X	I am always well behaved at home.
52. I always share things with other children	X X X X X X X	I never share things with other children.
53. I never work hard in class	X X X X X X X	I always work hard in class
54. I like the way I look.	X X X X X X X	I don't like the way I look.
55. I never try my best in class	X X X X X X X	I always try my best in class.
56. I never try at sport.	X X X X X X X	I always try my best at sport.

APPENDIX 4.

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TABLES A1 to A5 showing the intra-scale product moment correlation coefficients for each of the five proposed subscales.

Item number: 56.

Sample: 59.

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TABLE A.I.

Inter-item product moment correlation coefficients between items on the proposed academic self scale.

I T E M S .	I	2	3	4	5	6	7	8	9	IO
I. Likes school work.										
2. Listens to teacher.	.28									
3. School is nice.	.53	.25								
4. Neat school work.	.26	.I5	.42							
5. No good at school work.	.I4	.26	.II	.26						
6. Finish work quickly.	.24	.40	.I9	.24	.26					
7. I am clever.	.I5	.I6	-.02	.28	.52	.36				
8. I am well behaved.	.26	.28	.37	.25	.45	-.03	.23			
9. Never work hard.	.28	.2I	.3I	.2I	.34	.2I	.37	.43		
Io. Try my best in class	.I8	.23	.24	.0I	.I4	.28	.I4	.I6	.45	

TABLE A.2.

Inter-item product moment correlation coefficients between items on the proposed social self scale.

I T E M S .	I	2	3	4	5	6	7	8	9	I0
I. Children to play with.										
2. Children to talk to.	.60									
3. No one I get on with.	.4I	.32								
4. Bossy.	-.08	-.28	-.09							
5. Annoys others.	.03	-.07	.05	.35						
6. Bully.	.I2	.03	.0I	.I9	.34					
7. Friendly to others.	.I5	.03	-.I4	-.26	-.23	.0I				
8. Fighting.	.06	.07	-.I4	.06	.02	.32	.I6			
9. Never fall out of friends.	.30	.20	.I8	.07	.I3	.09	.I3	.I4		
I0. Share with others.	.22	.04	.0I	.36	.33	.30	.I0	.29	.06	

TABLE A.3.

Inter-item product moment correlation coefficients between items on the proposed physical self scale.

I T E M S.	I	2	3	4	5	6	7	8	9	IO	II	I2
I. Strong for age.												
2. Tidy hair.	.27											
3. No energy.	.II	.32										
4. Look dirty.	-.36	.23	.03									
5. Nice looking.	.23	.4I	.28	-.07								
6. Seem to be ill.	-.07	-.IO	.09	.06	.09							
7. Well dressed.	.I3	.35	.25	.I4	.I4	-.03						
8. Good runner.	.35	.28	.II	-.2I	.24	-.08	-.I4					
9. Like my face.	.0I	.23	.IO	.I9	.IO	.IO	.03	-.02				
IO. Good at P.E.	.23	.27	.0I	-.02	.09	.03	.4I	.06	.3I			
II. Like the way I look.	.IO	.20	.0I	-.2I	.28	-.05	.I2	.26	.57	.37		
I2. Try at sport.	.IO	.I2	.I4	-.I3	.IO	-.02	.2I	.0I	-.0I	.28	.04	

TABLE A.4.

Inter-item product moment correlation coefficients between items on the proposed emotional scale.

I T E M S.	I	2	3	4	5	6	7	8	9	I0	II	I2
I. Often do wrong.												
2. Lose temper.	.II											
3. Worry.	.02	.II										
4. Cheat.	.32	.I5	.I6									
5. Happy.	.I8	.26	-.04	.28								
6. Helpful.	.I9	.20	.04	.25	.35							
7. Trusted.	.28	.II	-.04	.0I	.3I	.24						
8. Shy.	.09	.07	.06	.38	.24	-.I7	.I3					
9. Truthful.	.20	.3I	.28	.45	.36	.I7	.04	.23				
I0. Kind.	.II	.2I	-.22	.09	.26	.29	.05	.0I	.I6			
II. Do as told.	-.I0	.I7	.I7	.I0	.II	.28	-.04	.02	.23	.27		
I2. Wish I were someone else.	.I0	.06	.03	.I8	.I7	.II	.I0	.0I	.23	.0I	.I5	

TABLE A.5.

Inter-item product moment correlation coefficients between items on the proposed family self scales.

I T E M S.	I	2	3	4	5	6	7	8	9		
I. Easy to live with.											
2. Big help at home.	.02										
3. Share with family.	.07	.43									
4. Fam. makes me happy.	.02	.II	.29								
5. P. tell others off.	.08	.09	-.I7	-.09							
6. Parents dislike friends.	-.04	.I5	.30	.2I	.20						
7. Kind to one another.	-.04	.I8	.39	.36	.I0	.43					
8. Bring friends in.	.II	-.II	.25	.I5	-.20	.I9	-.05				
9. Home cleaner than others.	-.03	.44	.II	.25	.29	.I7	.23	-.0I			
I0. All best of friends.	.I6	.0I	.24	.36	.0I	.08	.45	.I5	.2I		
II. Attention to me.	.I7	.I3	.I8	.33	.20	.36	.24	.08	.23	.I8	
I2. Not well behaved.	.04	.09	.26	.38	-.0I	.34	.48	.I8	.I7	.25	.39

APPENDIX 5.

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The form of the self concept scales containing 32 items.

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Boy/Girl..... Date of Birth..... Age.....years

1.	I think I am nice looking	X X X X X X X	I am not nice looking.
2.	At home we are always kind to one another	X X X X X X X	At home we are often unkind to one another
3.	I often wish I were someone else	X X X X X X X	I never wish I were someone else
4.	I never get "in a mood"	X X X X X X X	I always seem to be "in a mood"
5.	I don't like my face	X X X X X X X	I like my face
6.	My school is nice	X X X X X X X	I hate my school
7.	My family often makes me sad	X X X X X X X	My family always makes me happy
8.	I always share things with other children	X X X X X X X	I never share things with other children
9.	I never seem to have any energy	X X X X X X X	I always have plenty of energy.
10.	I never listen to the teacher in class	X X X X X X X	I always listen to the teacher in class
11.	I always seem to get upset easily	X X X X X X X	I never get upset over anything
12.	I am always well behaved at home	X X X X X X X	I am never well behaved at home
13.	I'm no good at school work	X X X X X X X	I am very good at school work
14.	I have plenty of children to play with	X X X X X X X	Often no-one will play with me.
15.	I am a happy person	X X X X X X X	I often seem to be unhappy
16.	I never bully other children	X X X X X X X	I often bully children

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17. I like the way I look	X X X X X X X	I don't like the way I look
18. My parents like all my friends	X X X X X X X	My parents dislike my friends
19. I rarely bother to help anyone	X X X X X X X	I am always helpful to others
20. I am always falling out of friends with other children	X X X X X X X	I never fall out of friends with other children
21. My hair is always tidy	X X X X X X X	My hair is never tidy
22. I never fight with other children	X X X X X X X	I always seem to be fighting with other children
23. At home, everyone pays attention to what I say	X X X X X X X	No-one pays any attention to what I say at home
24. I always work hard in class	X X X X X X X	I never work hard in class
25. I seem to annoy other children	X X X X X X X	I never annoy other children
26. We are always falling out with one another at home	X X X X X X X	At home we are always the best of friends
27. I am always well dressed	X X X X X X X	I am never well dressed
28. In class I am well-behaved	X X X X X X X	In class I am not well-behaved
29. I am very good at P.E. and games	X X X X X X X	I'm no good at P.E. and games
30. I often seem to be bad tempered	X X X X X X X	I am never bad tempered
31. I like to share everything with my family	X X X X X X X	I never share things with my family
32. I hate school work	X X X X X X X	I like school work.

APPENDIX 6.

****

TABLES B1 to B5 showing the intra-scale product moment correlation coefficients for each of the five proposed subscales.

Item Number: 32.

Sample: 100.

TABLE BI.

Inter-item product moment correlation coefficients between items on the proposed academic self scale.

I T E M S .	I	2	3	4	5	6
I. My school is nice.						
2. Listen to teacher.	.46					
3. Good at school work.	.I7	.08				
4. Work hard.	.50	.39	.32			
5. Well behaved.	.43	.47	.06	.48		
6. Like school work.	.46	.35	.I4	.43	.29	

TABLE B2.

Inter-item product moment correlation coefficients between items on the proposed social self scale.

I T E M S .	I	2	3	4	5	6
I. Share with others.						
2. Children to play with.	-.0I					
3. Bully.	.I2	.02				
4. Fall out with friends.	.0I	-.03	.I4			
5. Fight.	.40	-.I9	.47	.09		
6. Annoys others.	.09	.I9	.33	.2I	.34	

TABLE B 3.

Inter-item product moment correlational coefficients between items on the proposed physical scale.

I T E M S .	I	2	3	4	5	6	7
I. Nice looking.							
2. Like my face.	.22						
3. Plenty of energy.	.05	.27					
4. Like way I look.	.44	.20	.04				
5. Hair is tidy.	.07	.I6	-.0I	.04			
6. Well dressed.	.I7	.40	.I5	.I6	.37		
7. Good at games.	.23	.24	.47	.05	.I2	.26	

TABLE B 4.

Inter-item product moment correlation coefficients between items on the proposed emotional scale.

I T E M S .	I	2	3	4	5	6
I. Wish I were someone else.						
2. Get in a mood.	-.I5					
3. Upset easily.	.24	-.0I				
4. Happy person.	-.06	.08	-.09			
5. Rarely help others.	.05	.06	-.04	.02		
6. Bad tempered.	-.03	.25	.07	.30	.I7	

TABLE B 5.

Inter-item product moment correlation coefficients between items on the proposed family self scales.

I T E M S .	I	2	3	4	5	6	7
I. Kind to one another.							
2. Family makes me happy.	.I2						
3.Well behaved.	.35	.0I					
4. P. like my friends.	.22	.01	.22				
5. Pays attention to me.	-.02	.13	.27	.01			
6. Never fall out of friends.	.15	.24	.31	.10	.03		
7. Share everything.	.25	.24	.14	-.05	.23	.13	

APPENDIX 7.

****

The form of the self concept scale containing 38 items.

****

Boy/Girl..... Date of Birth..... Age.....Years

1. I have plenty of children to play with	X X X X X X X	I never have anyone to play with
2. I like the way I look	X X X X X X X	I don't like the way I look
3. I'm no good at school work	X X X X X X X	I'm very good at school work
4. I always seem to be fighting with other children	X X X X X X X	I never fight with other children
5. I like school work	X X X X X X X	I hate school work
6. I often wish I were someone else	X X X X X X X	I never wish I were someone else
7. I get most of my sums right	X X X X X X X	I always seem to get a lot of sums wrong
8. I often seem to bully other children	X X X X X X X	I never bully other children
9. I'm not as cheerful as other children	X X X X X X X	I am more cheerful than most other children
10. Nothing makes me cry.	X X X X X X X	Even little things can often make me cry
11. I think I am very popular with other children	X X X X X X X	I am not popular at all with other children
12. I often feel gloomy	X X X X X X X	I never feel gloomy
13. My parents often smack me unfairly	X X X X X X X	My parents never smack me unfairly
14. I don't enjoy any school lessons	X X X X X X X	I enjoy school lessons
15. I think I am nice looking	X X X X X X X	I am not nice looking

16. I am never badly behaved	X X X X X X X	I always seem to be badly behaved
17. I think I'm near to the bottom of the class	X X X X X X X	I'm near to the top of the class
18. I never get upset at all	X X X X X X X	I seem to get upset easily
19. I seem to annoy other children	X X X X X X X	I never annoy other children
20. I never do well in school tests	X X X X X X X	I always do very well in school tests
21. My parents always listen to what I say	X X X X X X X	My parents never listen to what I have to say
22. I don't have any problems with my reading	X X X X X X X	I seem to have a lot of problems with my reading
23. I always work hard in class	X X X X X X X	I never work hard in class
24. I seem to argue with everyone	X X X X X X X	I never argue at all
25. My parents always seem to be 'picking on me'	X X X X X X X	My parents don't 'pick on me' at all
26. I don't seem to smile much	X X X X X X X	I'm always smiling
27. I wouldn't change any part of the way I look	X X X X X X X	I would like to change many of the ways I look
28. I'll be glad when I leave this school	X X X X X X X	I will be very sorry when I leave this school
29. I have plenty of friends	X X X X X X X	I don't seem to have any friends at all
30. My parents always seem to be criticising me	X X X X X X X	My parents never criticise me
31. My school is nice	X X X X X X X	I hate my school

32. I make friends easily with other children	X X X X X X X	I find it very hard to make friends
33. My parents always seem to be angry with me	X X X X X X X	My parents are never angry with me
34. I always get very good marks for my school work	X X X X X X X	I always get very low marks for my school work
35. I think a lot of children like me	X X X X X X X	Hardly any children like me
36. I seem to get angry very easily	X X X X X X X	I never get angry
37. I feel other children think I'm ugly	X X X X X X X	I feel other children think I'm good looking
38. My parents never treat me like a baby	X X X X X X X	My parents treat me too much like a baby

APPENDIX 8.

****

TABLES C1 to C7 showing the intra-scale product moment correlation coefficients for each of the seven proposed subscales.

Item number: 38.

Sample: 110.

****

TABLE C 1.

Inter-item product moment correlation coefficients between items on the proposed general school self scale.

I T E M S	1	2	3	4	5
1. Like school work.					
2. Don't enjoy lessons.	.61				
3. Work hard.	.18	.33			
4. Glad to leave.	.65	.45	.99		
5. School is nice.	.61	.55	.04	.74	

TABLE C 2.

Inter-item product moment correlation coefficients between items on the proposed academic self scale.

I T E M S .	1	2	3	4	5	6
1. No good at school work.						
2. Sums right.	.36					
3. Near bottom of class.	.55	.49				
4. Do well in tests.	.52	.34	.66			
5. No problem in reading.	.36	.19	.35	.46		
6. Good marks.	.64	.49	.61	.56	.43	

TABLE C 3.

Inter-item product moment correlation coefficients between items on the proposed social self scale.

I T E M S	1	2	3	4	5
1. Children to play with.					
2. Popular.	.12				
3. Plenty of friends.	.71	.20			
4. Make friends easily.	.50	.23	.49		
5. Children like me.	.19	.40	.27	.43	

TABLE C 4.

Inter-item product moment correlational coefficients between items on the proposed behavioural self scale.

I T E M S	1	2	3	4	5	6
1. Fighting.						
2. Bully.	.35					
3. Badly behaved.	.39	.34				
4. Annoys others.	.39	.35	.49			
5. Argue with others.	.41	.21	.39	.54		
6. Get angry easily.	.43	.37	.52	.49	.59	

TABLE C 5.

Inter-item product moment correlational coefficients between items on the proposed parental self scale.

I T E M S	1	2	3	4	5	6
1. Smack me unfairly.						
2. Listen to me.	.44					
3. Picking on me.	.49	.64				
4. Criticising me.	.30	.33	.43			
5. Angry with me.	.32	.35	.36	.35		
6. Treat me like a baby.	.19	.14	.14	.08	.12	

TABLE C 6.

Inter-item product moment correlation coefficients between items on the proposed emotional self scale.

I T E M S	1	2	3	4	5	6
1. Wish someone else.						
2. Not cheerful.	.09					
3. Cry easily.	.08	.15				
4. Feel gloomy.	.25	.31	.19			
5. Upset easily.	.01	.23	.44	.22		
6. Don't smile much.	.27	.48	.16	.38	.19	

TABLE C 7.

Inter-item product moment correlation coefficients between items on the proposed physical self scale.

I T E M S	1	2	3	4
1. Like way I look.				
2. Nice looking.	.58			
3. Wouldn't change me.	.30	.30		
4. Others think I'm ugly.	.37	.56	.19	

APPENDIX 9.

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The form of the self concept scale containing 26 items.

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Boy/Girl..... Date of Birth..... Age.....

1. I always have plenty of children to play with.	X X X X X X X	I never have anyone to play with.
2. I like the way I look.	X X X X X X X	I don't like the way I look.
3. I always seem to be fighting with other children.	X X X X X X X	I never fight with other children.
4. I like school work.	X X X X X X X	I hate school work.
5. I get most of my sums right.	X X X X X X X	I always seem to get a lot of sums wrong.
6. I think I am very popular with other children.	X X X X X X X	I am not popular at all with other children.
7. My parent often smack me unfairly.	X X X X X X X	My parents never smack me unfairly.
8. I don't enjoy any school lessons.	X X X X X X X	I enjoy school lessons.
9. I am never badly behaved.	X X X X X X X	I always seem to be badly behaved.
10. I think I'm near to the bottom of the class.	X X X X X X X	I'm near to the top of the class.
11. I seem to annoy other children.	X X X X X X X	I never annoy other children.
12. I never do well in school tests.	X X X X X X X	I always do very well in school tests.
13. My parents always listen to what I have to say.	X X X X X X X	My parents never listen to what I have to say.

14. I always work hard in class.	X X X X X X X	I never work hard in class.
15. I seem to argue with everyone.	X X X X X X X	I never argue at all.
16. My parents always seem to be 'picking on me'.	X X X X X X X	My parents don't 'pick on me' at all.
17. I'll be glad when I leave this school.	X X X X X X X	I will be very sorry when I leave this school.
18. I have many friends.	X X X X X X X	I don't seem to have any friends at all.
19. My school is nice.	X X X X X X X	I hate my school.
20. I make friends easily with other children.	X X X X X X X	I find it very hard to make friends.
21. My parents always seem to be angry with me.	X X X X X X X	My parents are never angry with me.
22. I always get very good marks for my school work.	X X X X X X X	I always get very low marks for my school work.
23. I think a lot of children like me.	X X X X X X X	Hardly any children like me.
24. I never get angry.	X X X X X X X	I seem to get angry very easily.
25. I feel other children think I'm ugly.	X X X X X X X	I feel other children think I'm good looking.
26. I'm a friendly sort of person.	X X X X X X X	I'm not a friendly person.

APPENDIX 10.

****

TABLES D1 to D6 showing the intra-scale product moment correlation coefficients for each of the six proposed subscales.

Item number: 26.

Sample: 742.

TABLE D 1.

Inter-item product moment correlation coefficients between items on the proposed academic self scale.

I T E M S .	1	2	3	4	5
1. Sums right.					
2. Bottom of class.	.40				
3. Do well in tests.	.40	.39			
4. Work hard in class.	.31	.28	.29		
5. Good marks.	.49	.43	.43	.48	

TABLE D 2.

Inter-item product moment correlation coefficients between items on the proposed general school self scale.

I T E M S .	1	2	3	4
1. Like school work.				
2. Enjoy lessons.	.58			
3. Glad to leave school.	.48	.47		
4. Nice school.	.54	.48	.58	

TABLE D 3.

Inter-item product moment correlation coefficients between items on the proposed parental self scale.

I T E M S	1	2	3	4
1. Parents smack unfairly.				
2. Parents listen to me.	.27			
3. Parents pick on me	.40	.34		
4. Parents angry with me	.31	.34	.42	

****

TABLE D 4.

Inter-item product moment correlation coefficients between items on the proposed behavioural self scale.

I T E M S .	1	2	3	4	5
1. Always fighting.					
2. Badly behaved.	.39				
3. Annoy others.	.33	.33			
4. Argue with everyone.	.37	.33	.41		
5. Never get angry.	.32	.32	.31	.35	

TABLE D 5.

Inter-item product moment correlation coefficients between items on the proposed social self scale.

I T E M S .	1	2	3	4	5	6
1. Children to play with.						
2. Popular.	.31					
3. Many friends.	.54	.31				
4. Makes friends easily.	.38	.26	.43			
5. Children like me.	.40	.43	.47	.49		
6 . Friendly person.	.16	.22	.18	.22	.27	

TABLE D 6.

Inter-item product moment correlation coefficient between items on the proposed physical self scale.

I T E M S .	1	2
1. Like the way I look.		
2. Children think I'm ugly.	.31	

APPENDIX 11.

****

TABLES E1 to E5 showing the intra-scale product moment correlation coefficients for each of the five proposed subscales.

Item number: 21.

Sample: 742.

TABLE E 1.

Inter-item product moment correlation coefficients between items on the proposed academic self scale.

I T E M S .	1	2	3	4
1. Sums right.				
2. Bottom of class.	.40			
3. Do well in tests.	.40	.39		
4. Good marks.	.49	.43	.43	

TABLE E 2.

Inter-item product moment correlation coefficients between items on the proposed general school self scale.

I T E M S .	1	2	3	4
1. Like school work.				
2. Enjoy lessons.	.58			
3. Glad to leave school.	.48	.47		
4. Nice school.	.54	.48	.58	

TABLE E 3.

Inter-item product moment correlation coefficients between items on the proposed parental self scale.

I T E M S .	1	2	3	4
1. Parents smack unfairly.				
2. Parents listen to me.	.27			
3. Parents pick on me.	.40	.34		
4. Parents angry with me.	.31	.34	.42	

TABLE E 4.

Inter-item product moment correlation coefficients between items on the proposed behavioural self scale.

I T E M S.	1	2	3	4	5
1. Always fighting.					
2. Badly behaved.	.39				
3. Annoy others.	.33	.33			
4. Argue with everyone.	.37	.33	.41		
5. Never get angry.	.32	.32	.31	.35	

TABLE E 5.

Inter-item product moment correlation coefficients between items on the proposed social self scale.

I T E M S.	1	2	3	4
1.Children to play with				
2. Many friends.	.54			
3. Make friends easily.	.38	.43		
4. Children like me.	.39	.47	.49	